

HISTORY INFORMATION FOR THE FOLLOWING MANUAL:

SERVICE MANUAL

BA-6 CHASSIS

<u>MODEL NAME</u>	<u>REMOTE COMMANDER</u>	<u>DESTINATION</u>	<u>CHASSIS NO.</u>
KV-21FA340	RM-Y194	LATIN NORTH	SCC-S82C-A
KV-21FA340	RM-Y194	LATIN SOUTH	SCC-S82D-A
KV-21FA540	RM-Y194	LATIN NORTH	SCC-S82A-A
KV-21FA540	RM-Y194	LATIN SOUTH	SCC-S82B-A
KV-29FA340	RM-Y194	LATIN NORTH	SCC-S73V-A
KV-29FA340	RM-Y194	LATIN SOUTH	SCC-S73W-A
KV-29FA540	RM-Y194	LATIN NORTH	SCC-S73X-A
KV-29FA540	RM-Y194	LATIN SOUTH	SCC-S73Y-A

ORIGINAL MANUAL ISSUE DATE: 3/2006

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3/2006

No revisions or updates are applicable at this time.

TRINITRON® COLOR TELEVISION
SONY®

9-883-701-01

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KV-21FA340	RM-Y194	LATIN NORTH	SCC-S82C-A
KV-21FA340	RM-Y194	LATIN SOUTH	SCC-S82D-A
KV-21FA540	RM-Y194	LATIN NORTH	SCC-S82A-A
KV-21FA540	RM-Y194	LATIN SOUTH	SCC-S82B-A
KV-29FA340	RM-Y194	LATIN NORTH	SCC-S73V-A
KV-29FA340	RM-Y194	LATIN SOUTH	SCC-S73W-A
KV-29FA540	RM-Y194	LATIN NORTH	SCC-S73X-A
KV-29FA540	RM-Y194	LATIN SOUTH	SCC-S73Y-A



KV-21FA540



RM-Y194

TRINITRON® COLOR TELEVISION
SONY®

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SPECIFICATIONS

	KV-21FA340	KV-21FA540
Power Requirements (Chile, Perú, Bolivia)	120V, 60Hz 220V, 50/60Hz	120V, 60Hz 220V, 50/60Hz
Number of Inputs/Outputs		
Video ¹⁾	3	3
S Video ²⁾	1	1
Y, P _B , P _R ³⁾	1	1
Audio ⁴⁾	4	4
RF ⁵⁾		
External for Center/Subwoofer	1	1
Audio Panel	1	1
Front Panel Audio	1	1
Right & Left Satellite Speakers		1
Speaker Output (W)	5W x 2	5W x 2
Subwoofer	15W	15W
Center	5W	5W
Satellite Speakers		5W x 2
Power Consumption (W)		
In Use (Max)	155W	180W
(Chile, Perú, Bolivia)	150W	175W
In Standby (Max) ⁵⁾	<1W	<1W
Dimensions with Subwoofer (W x H x D)		
mm	648 x 569 x 497 mm	648 x 568.5 x 496.4 mm
in	25 ^{1/2} x 22 ^{1/2} x 19 ^{1/2} in	25 ^{1/2} x 22 ^{1/2} x 19 ^{1/2} in
Dimensions of Satellite Speakers (W x H x D)		
mm		112 x 478.4 x 87 mm
in		4 ^{3/8} x 18 ^{3/4} x 3 ^{1/2} in
Mass		
kg	28.2 kg	28.2 kg
lbs	62 lbs 1 oz	62 lbs 1 oz
Mass of Satellite Speakers		
kg		.6 kg
lbs		1 lbs 5 oz

- 1) 1 Vp-p 75 ohms unbalanced, sync negative
 2) Y: 1 Vp-p 75 ohms unbalanced, sync negative
 C: 0.286 Vp-p (Burst signal), 75 ohms
 3) Y: 1.0 Vp-p, 75 ohms, sync negative; PB: 0.7 Vp-p, 75 ohms;
 PR Vp-p, 75 ohms.
 4) 500 mVrms (100% modulation), Impedance: 47 kilohms
 5) This specification is the maximum wattage.

KV-21FA340/29FA340 MODELS



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Sony, FD Trinitron, WEGA, ClearEdge VM, Intelligent Picture y Dynamic Bass Response System son marcas comerciales de Sony.

KV-21FA540/29FA540 MODELS



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Sony, FD Trinitron, WEGA, ClearEdge VM, Intelligent Picture y Dynamic Bass Response System son marcas comerciales de Sony.

Design and specifications are subject to change without notice.

	KV-29FA340	KV-29FA540
Power Requirements (Chile, Perú, Bolivia)	120V, 60Hz 220V, 50/60Hz	120V-220V, 50/60Hz 220V, 50/60Hz
Number of Inputs/Outputs		
Video ¹⁾	3	3
S Video ²⁾	1	1
Y, P _B , P _R ³⁾	1	1
Audio ⁴⁾	4	4
RF ⁵⁾	1	1
External for Center/Subwoofer	1	1
Audio Panel	1	1
Right & Left Satellite Speakers		1
Speaker Output (W)	7W x 2	7W x 2
Subwoofer	20W	20W
Center	7W	7W
Satellite Speakers		7W x 2
Power Consumption (W)		
In Use (Max)	220W	240W
(Chile, Perú, Bolivia)	215W	235W
In Standby (Max) ⁵⁾	<1W	<1W
Dimensions with Subwoofer (W x H x D)		
mm	804 x 697 x 509 mm	804 x 697 x 509 mm
in	31 ⁵ / ₈ x 27 ¹ / ₂ x 20 in	31 ⁵ / ₈ x 27 ¹ / ₂ x 20 in
Dimensions of Satellite Speakers (W x H x D)		
mm		112 x 605 x 87 mm
in		4 ³ / ₈ x 23 ³ / ₄ x 3 ¹ / ₂ in
Mass		
kg	49.8 kg	49.8 kg
lbs	109 lbs 10 oz	109 lbs 10 oz
Mass of Satellite Speakers		
kg		.8 kg
lbs		1 lbs 12 oz

- 1) 1 Vp-p 75 ohms unbalanced, sync negative
2) Y: 1 Vp-p 75 ohms unbalanced, sync negative
C: 0.286 Vp-p (Burst signal), 75 ohms
3) Y: 1.0 Vp-p, 75 ohms, sync negative; PB: 0.7 Vp-p, 75 ohms;
PR Vp-p, 75 ohms.
4) 500 mVrms (100% modulation), Impedance: 47 kilohms
5) This specification is the maximum wattage.

Television system

American TV standard, NTSC

Channel coverage

VHF: 2-13/ UHF: 14-69/ CATV: 1-125

Antenna

75-ohm external antenna terminal for VHF/UHF

Picture tubeFD Trinitron[®] tube**Visible screen size**

20-inch picture measured diagonally (KV-21FA340/21FA540 Only)

27-inch picture measured diagonally (KV-29FA340/29FA540 Only)

Actual screen size

21-inch measured diagonally (KV-21FA340/21FA540 Only)

29-inch measured diagonally (KV-29FA340/29FA540 Only)

Supplied Accessories

Remote Commander RM-Y194

Two Size AA (R6) Batteries

Telescopic Antenna (KV-21FA340/21FA540 Only)

Optional Accessories

Connection Cables

VMC-810S/820S

VMC-720M

YC-YC-15V/30V

RK74FA

WARNINGS AND CAUTIONS

CAUTION

Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield, or carbon painted on the CRT, after removing the anode.

WARNING!!

An isolation transformer should be used during any service to avoid possible shock hazard, because of live chassis. The chassis of this receiver is directly connected to the AC power line.



SAFETY-RELATED COMPONENT WARNING!!

Components identified by shading and  mark on the schematic diagrams, exploded views, and in the parts list are critical for safe operation. Replace these components with Sony parts whose part numbers appear as shown in this manual or in supplements published by Sony. Circuit adjustments that are critical for safe operation are identified in this manual. Follow these procedures whenever critical components are replaced or improper operation is suspected.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or touching high-wattage resistors.
3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.
4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
5. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
6. Check the line cords for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
7. Check the B+ and HV to see if they are specified values. Make sure your instruments are accurate; be suspicious of your HV meter if sets always have low HV.
8. Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

Leakage Test

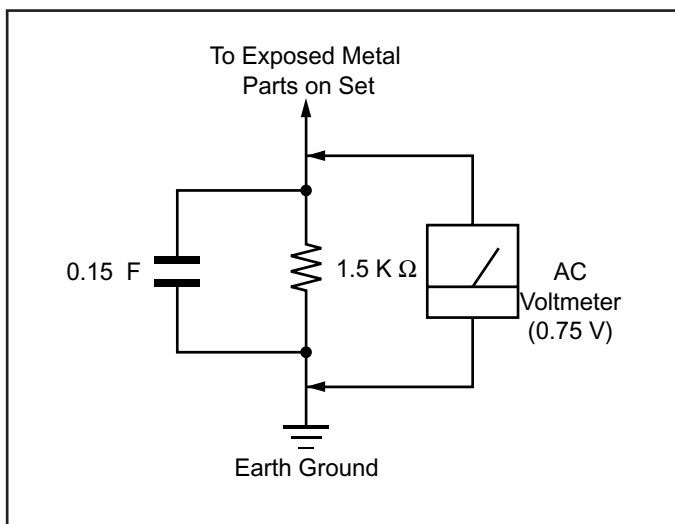


Figure A. Using an AC voltmeter to check AC leakage.

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instructions.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low voltage scale. The Simpson's 250 and Sanwa SH-63TRD are examples of passive VOMs that are suitable. Nearly all battery-operated digital multimeters that have a 2 VAC range are suitable (see Figure A).

How to Find a Good Earth Ground

A cold-water pipe is a guaranteed earth ground; the cover-plate retaining screw on most AC outlet boxes is also at earth ground. If the retaining screw is to be used as your earth ground, verify that it is at ground by measuring the resistance between it and a cold-water pipe with an ohmmeter. The reading should be zero ohms.

If a cold-water pipe is not accessible, connect a 60- to 100-watt trouble-light (not a neon lamp) between the hot side of the receptacle and the retaining screw. Try both slots, if necessary, to locate the hot side on the line; the lamp should light at normal brilliance if the screw is at ground potential (see Figure B).

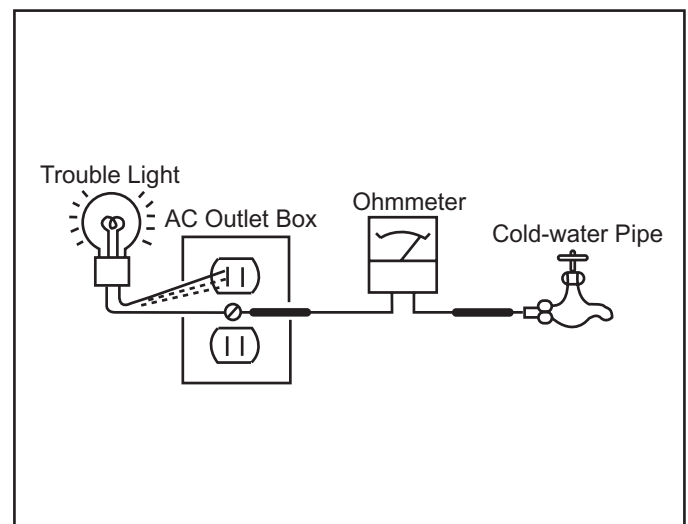


Figure B. Checking for earth ground.

SELF-DIAGNOSTIC FUNCTION



The units in this manual contain a self-diagnostic function. If an error occurs, the STANDBY/TIMER LED will automatically begin to flash. The number of times the LED flashes translates to a probable source of the problem. A definition of the STANDBY/TIMER LED flash indicators is listed in the instruction manual for the user's knowledge and reference. If an error symptom cannot be reproduced, the Remote Commander can be used to review the failure occurrence data stored in memory to reveal past problems and how often these problems occur.

Diagnostic Test Indicators

When an error occurs, the STANDBY/TIMER LED will flash a set number of times to indicate the possible cause of the problem. If there is more than one error, the LED will identify the first of the problem areas.

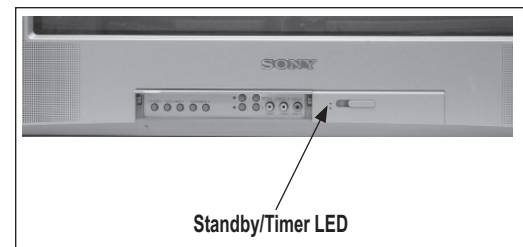
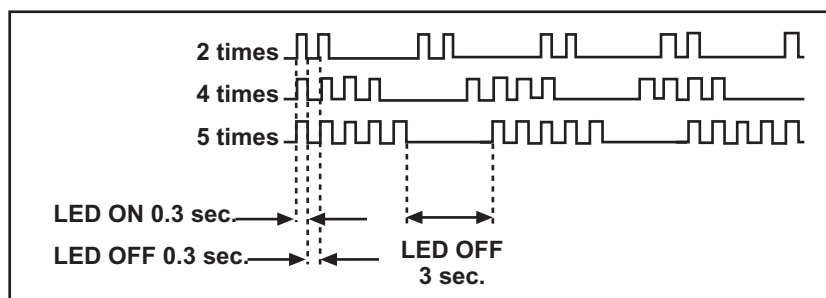
Results for all of the following diagnostic items are displayed on screen. No error has occurred if the screen displays a "0".

Diagnostic Item Description	No. of times STANDBY/ TIMER lamp flashes	Self-Diagnostic Display/ Diagnostic Result	Probable Cause Location	Detected Symptoms
Power does not turn on	Does not light	—————	- Power cord is not plugged in. - Fuse is burned out (F601). (A Board)	- Power does not come on. - No power is supplied to the TV. - AC Power supply is faulty.
+B overcurrent (OCP)*	2 times	2:0 or 2:1	- H.OUT (Q502) is shorted. (A Board) - IC702 is shorted. (CV Board)	- Power does not come on. - Load on power line is shorted.
I-Prot	4 times	4:0 or 4:1	+13V is not supplied. (A Board) - IC561 is faulty. (A Board)	- Has entered standby state after horizontal raster. - Vertical deflection pulse is stopped. - Power line is shorted or power supply is stopped.
IK (AKB)	5 times	5:0 or 5:1	- IC001 is faulty. (MT Board) - Screen (G2) is improperly adjusted.**	- No raster is generated. - CRT Cathode current detection reference pulse output is small.

*If a +B overcurrent is detected, stoppage of the vertical deflection is detected simultaneously. The symptom that is diagnosed first by the microcontroller is displayed on the screen.

**Refer to Screen (G2) Adjustments in Section 2-4. of this manual.

Display of Standby/Timer LED Flash Count



Diagnostic Item	Flash Count*
+B Overcurrent	2 times
I-Prot	4 times
IK (AKB)	5 times

*One flash count is not used for self-diagnostic.

Stopping the Standby/Timer LED Flash

Turn off the power switch on the TV main unit or unplug the power cord from the outlet to stop the STANDBY/TIMER LAMP from flashing.

Self-Diagnostic Screen Display

For errors with symptoms such as “power sometimes shuts off” or “screen sometimes goes out” that cannot be confirmed, it is possible to bring up past occurrences of failure on the screen for confirmation.

To Bring Up Screen Test

In standby mode, press buttons on the Remote Commander sequentially, in rapid succession, as shown below:

DISPLAY → Channel 5 → Sound Volume 0 → POWER

↑ Note that this differs from entering the Service Mode (Sound Volume +).

Self-Diagnostic Screen Display

SELF DIAGNOSTIC		
2: +B OCP	0	
3: +B OVP	N/A	
4: VSTOP	0	
5: AKB	1	
101: WDT	N/A	

Numeral “0” means that no fault was detected.

Numeral “1” means a fault was detected one time only.

Handling of Self-Diagnostic Screen Display

Since the diagnostic results displayed on the screen are not automatically cleared, always check the self-diagnostic screen during repairs. When you have completed the repairs, clear the result display to “0”.

Unless the result display is cleared to “0”, the self-diagnostic function will not be able to detect subsequent faults after completion of the repairs.

Clearing the Result Display

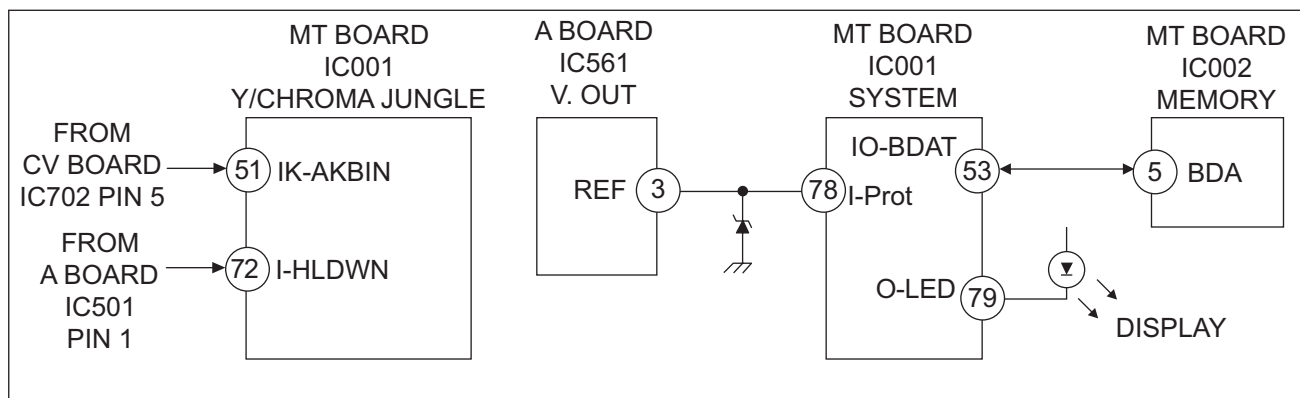
To clear the result display to “0”, press buttons on the Remote Commander sequentially when the diagnostic screen is displayed, as shown below:

Channel 8 → ENTER

Quitting the Self-Diagnostic Screen

To quit the entire self-diagnostic screen, turn off the power switch on the Remote Commander or the main unit.

Self-Diagnostic Circuit



+B overcurrent (OCP)

Occurs when an overcurrent on the +B (135V) line is detected by pin 72 of IC001 (MT Board). If the voltage of pin 72 of IC001 (MT Board) is less than 1V when V.SYNC is more than seven verticals in a period, the unit will automatically turn off.

I-Prot

Occurs when an absence of the vertical deflection pulse is detected by pin 78 of IC001 (MT Board). Power supply will shut down when waveform interval exceeds 2 seconds.

IK (AKB)

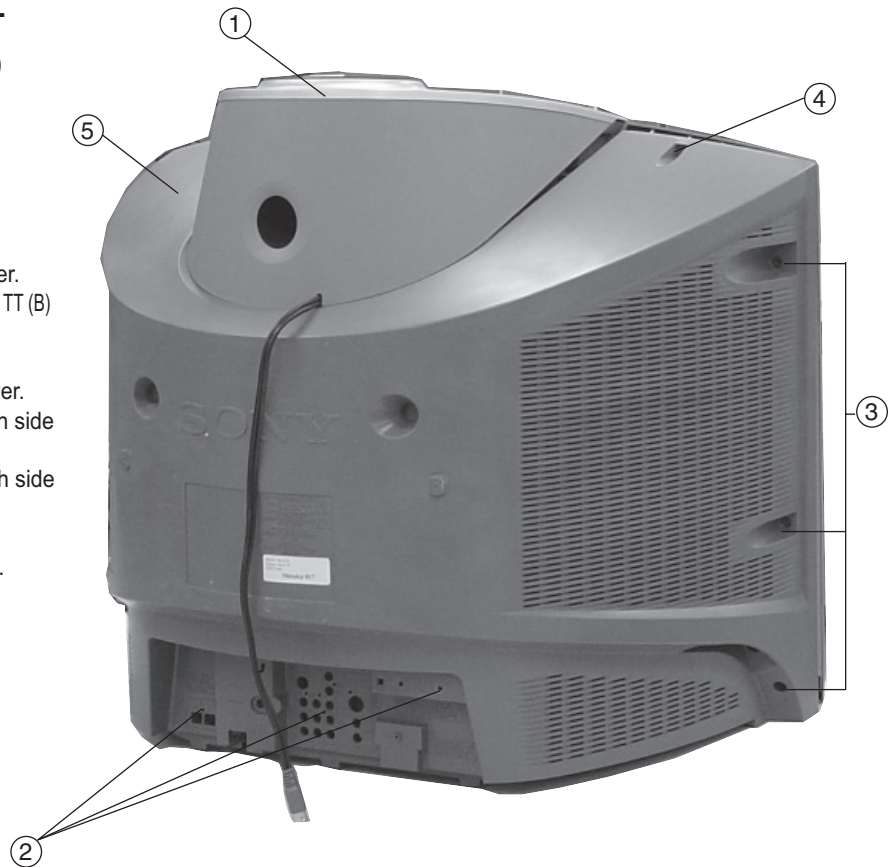
If the RGB levels* do not balance within 2 seconds after the power is turned on, this error will be detected by IC001 (MT Board). TV will stay on, but there will be no picture.

*(Refers to the RGB levels of the AKB detection Ref pulse that detects IK).

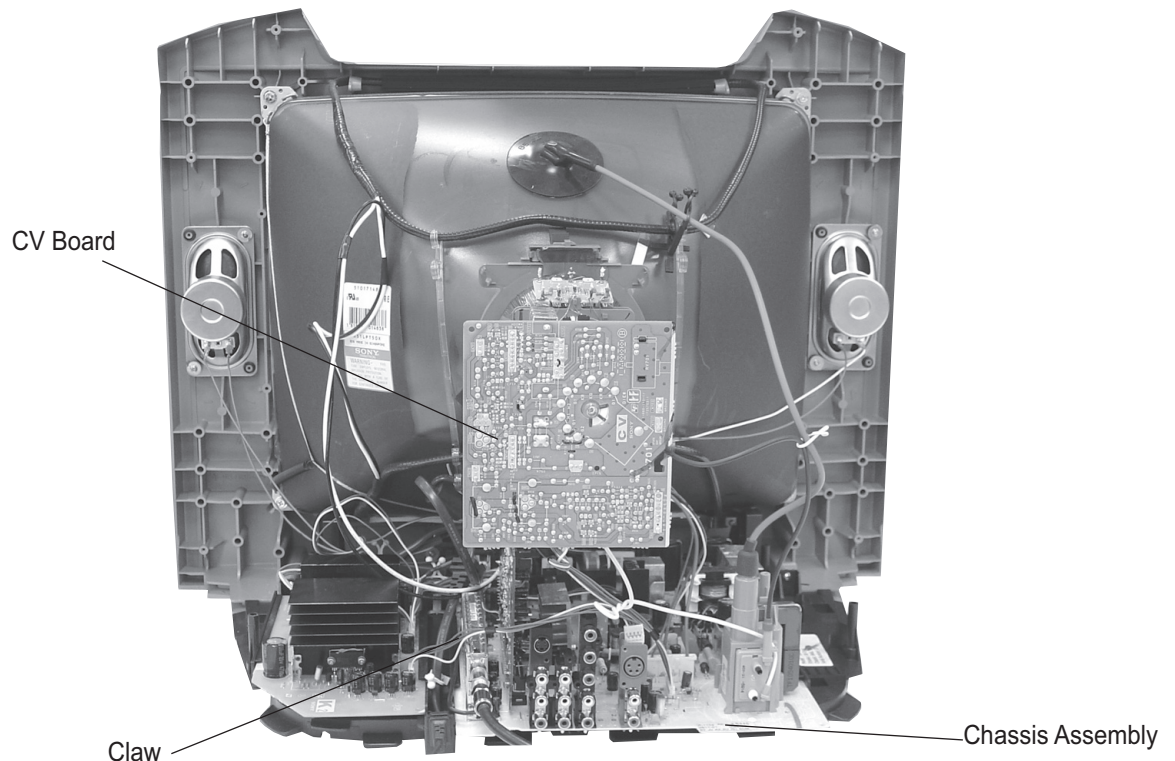
SECTION 1: DISASSEMBLY

1-1. REAR COVER REMOVAL (KV-29FA540 PICTURED)

- ① Lift to remove Subwoofer from top of Rear Cover.
- ② Remove screws from back of cover.
5 Screws SCREW +BVTP 3X12 TYPE2 TT (B)
1 Screw +BVTP 4X16 TYPE2 IT-3
- ③ Remove screws from sides of cover.
3 SCREW +BVTP 4X16 TYPE2 IT-3 each side
(KV-29FA340/29FA540 Only)
2 SCREW +BVTP 4X16 TYPE2 IT-3 each side
(KV-21FA340/21FA540 Only)
- ④ Remove screws from top of cover.
4 SCREW +BVTP 4X16 TYPE2 IT-3
(KV-29FA340/29FA540 Only)
2 SCREW +BVTP 4X16 TYPE2 IT-3
(KV-21FA340/21FA540 Only)
- ⑤ Remove rear cover



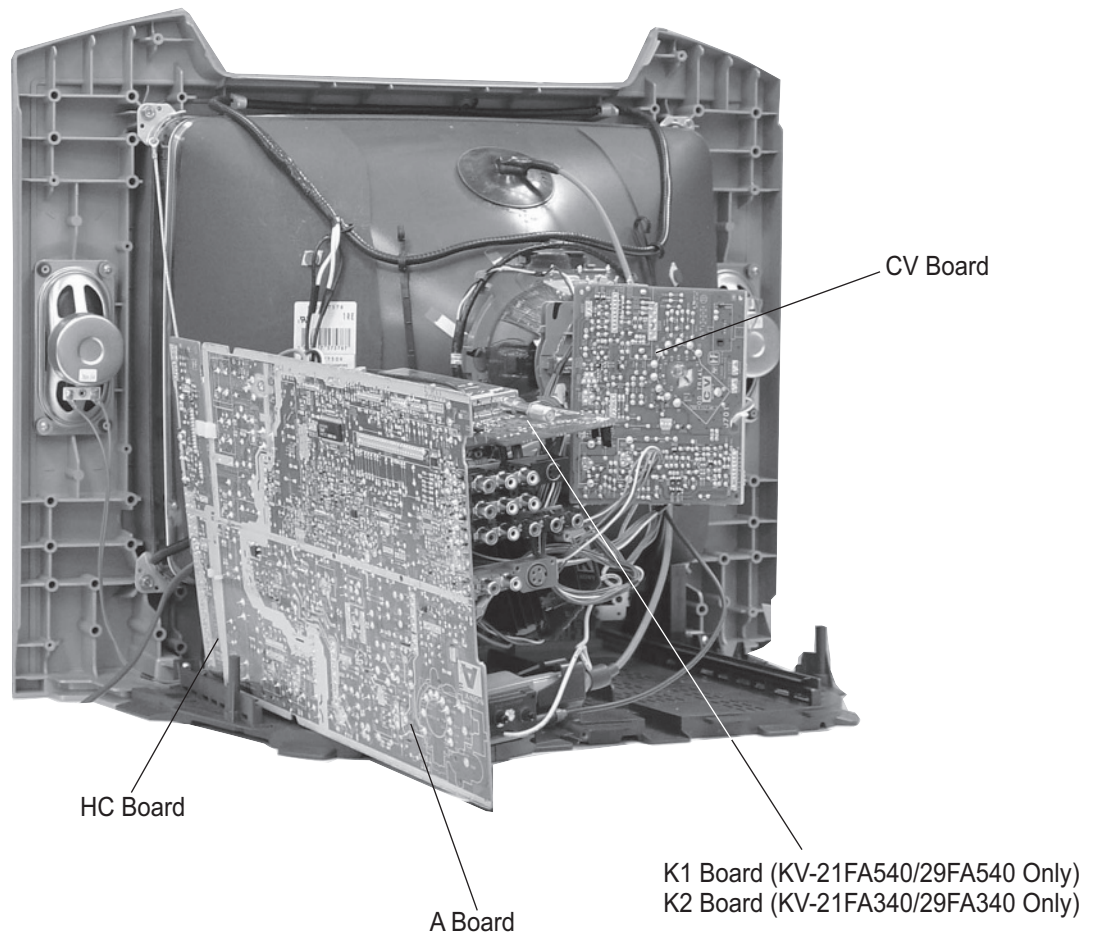
1-2. CHASSIS ASSEMBLY REMOVAL (KV-21FA540 PICTURED)



1-3. SERVICE POSITION

(KV-21FA540 SHOWN)

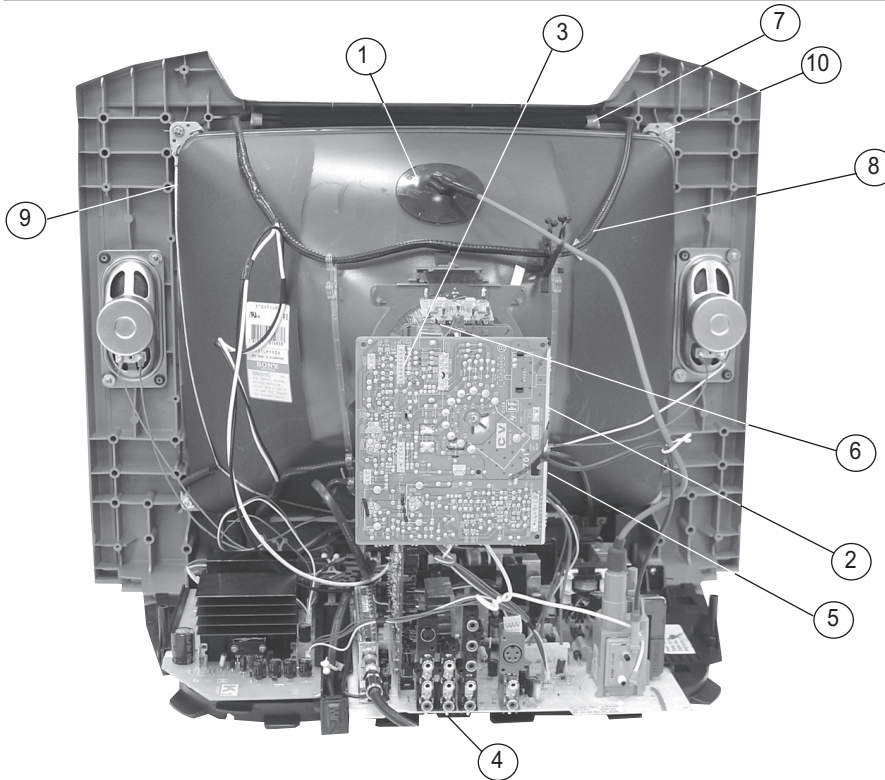
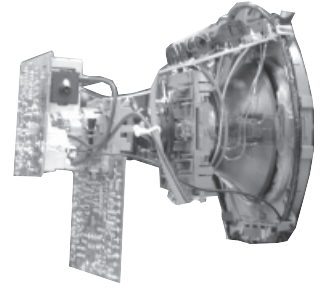
- ① Disconnect the CN501 cable from the A Board.
- ② Press on catch tab to release A Board.
- ③ Gently pull the K1 or K2 Board and the A Board forward to access the HC Board.
- ④ Disconnect the speaker cable from the HC Board.
- ⑤ Gently continuing pulling the A Board and HC Board forward to place in service position.
- ⑥ Reconnect CN501 and speaker cables



1-4. PICTURE TUBE REMOVAL

WARNING: BEFORE REMOVING THE ANODE CAP

High voltage remains in the CRT even after the power is disconnected. To avoid electric shock, discharge CRT before attempting to remove the anode cap. Short between anode and CRT coated earth ground strap.



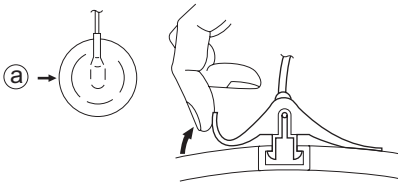
1. Discharge the anode of the CRT and remove the anode cap.
2. Unplug all interconnecting leads from the deflection yoke, neck assembly, degaussing coils and CRT grounding strap.
3. Remove the CV Board from the CRT.
4. Remove the chassis assembly.
5. Loosen the neck assembly fixing screw and remove.
6. Loosen the deflection yoke fixing screw and remove.
7. Place the set with the CRT face down on a cushion and remove the degaussing coil holders.
8. Remove the degaussing coils.
9. Remove the CRT grounding strap and spring tension devices.
10. Unscrew the four CRT fixing screws [located on each CRT corner] and remove the CRT [Take care not to handle the CRT by the neck].

ANODE CAP REMOVAL PROCEDURE

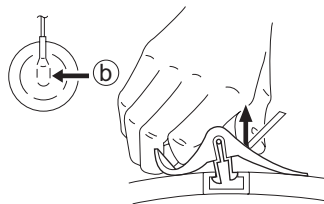
WARNING: High voltage remains in the CRT even after the power is disconnected. To avoid electric shock, discharge CRT **before** attempting to remove the anode cap. Short between anode and coated earth ground strap of CRT.

NOTE: After removing the anode cap, short circuit the anode of the picture tube and the anode cap to either the metal chassis, CRT shield, or carbon painted on the CRT.

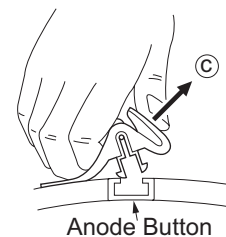
REMOVAL PROCEDURES



Turn up one side of the rubber cap in the direction indicated by arrow (a) .



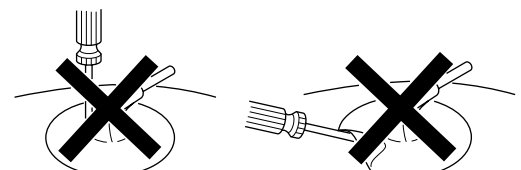
Use your thumb to pull the rubber cap firmly in the direction indicated by arrow (b) .



When one side of the rubber cap separates from the anode button, the anode cap can be removed by turning the rubber cap and pulling it in the direction of arrow (c) .

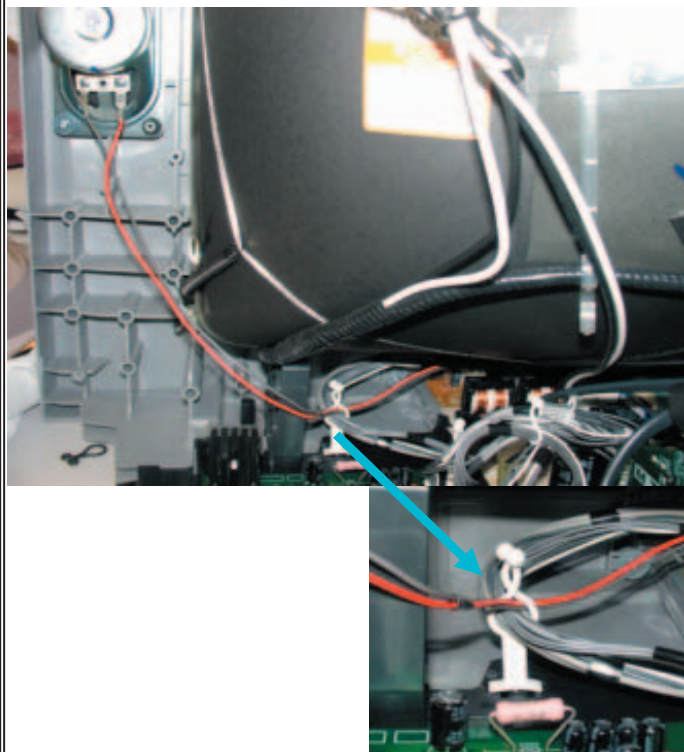
HOW TO HANDLE AN ANODE CAP

1. Do not use sharp objects which may cause damage to the surface of the anode cap.
2. To avoid damaging the anode cap, do not squeeze the rubber covering too hard. A material fitting called a shatter-hook terminal is built into the rubber.
3. Do not force turn the foot of the rubber cover. This may cause the shatter-hook terminal to protrude and damage the rubber.

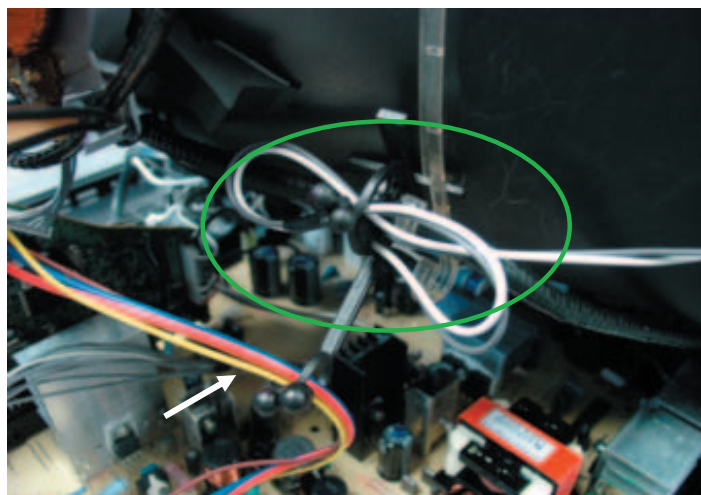


CABLE WIRE DRESSING**KV-21FA340/21FA540 MODELS ONLY**

21FA540/540C/340/340C



Dress right speaker wire using a purse lock (4-072-499-12) as picture shown.



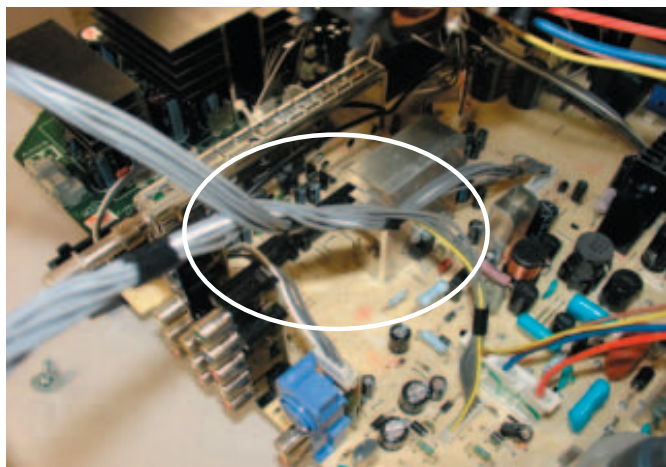
- Dress left speaker wire using DY purse lock as shown in picture. Keep away from DY cable.
- Dress DY's lead wire harness using a purse lock (4-081-411-02)

Rev 1.1

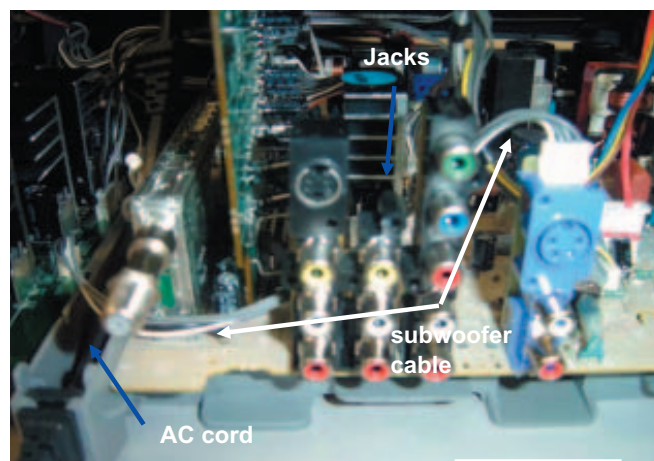
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KV-21FA340/21FA540 MODELS ONLY

21FA540/540C/340/340C



Interlace once VM (A/CN502~CV/CN901) and heater (A/CN503~CV/CN706) harnesses together as shown in picture.



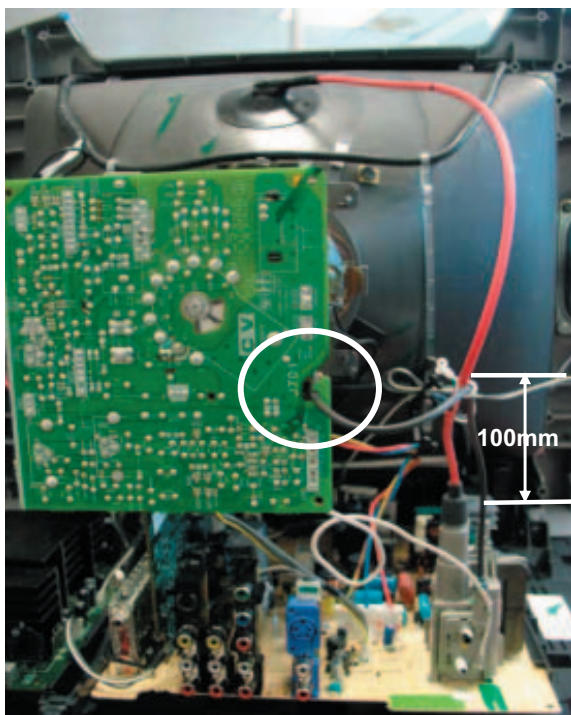
Dress subwoofer harness (K1/CN2403 or K2/CN3403~A/J207) pass under F-Pin, behind video jacks & over AC cord as picture shown.

Rev 1.1

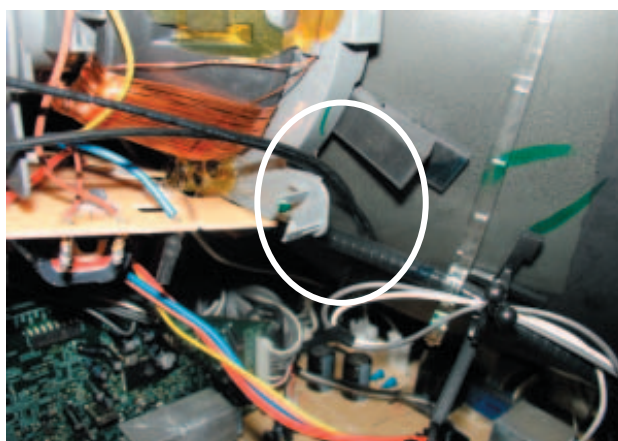
3/9

KV-21FA340/21FA540 MODELS ONLY

21FA540/540C/340/340C



- Dress focus lead and HV cable together using 5mm purse lock (3-703-981-02), install purse lock 100mm from HV cable's cap. And pass focus lead through CV board's hook



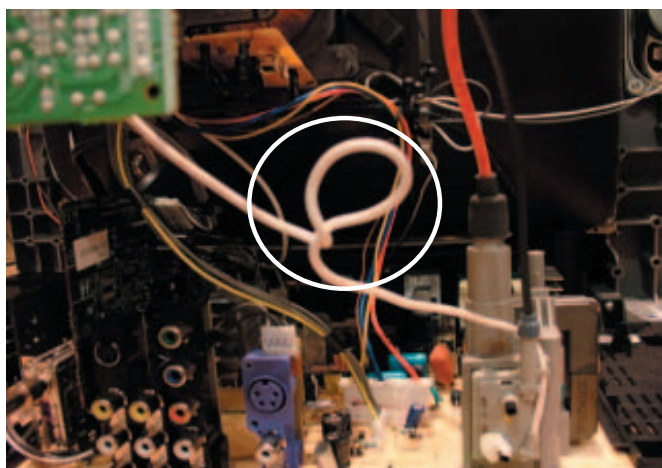
Pass CRT ground wire over DY's cilp & behind DGC as shown in picture.

Rev 1.1

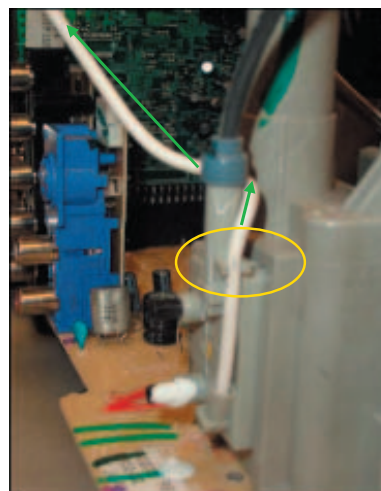
4/9

KV-21FA340/21FA540 MODELS ONLY

21FA540/540C/340/340C



Twist G2 wire without stressing it



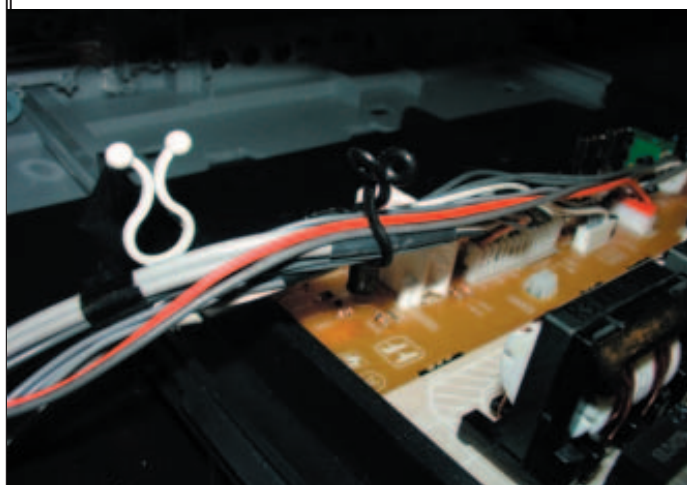
- Fix G2 wire through FBT G2 clip.
- Pass G2 wire between Focus wire & FBT as shown in picture.

Rev 1.1

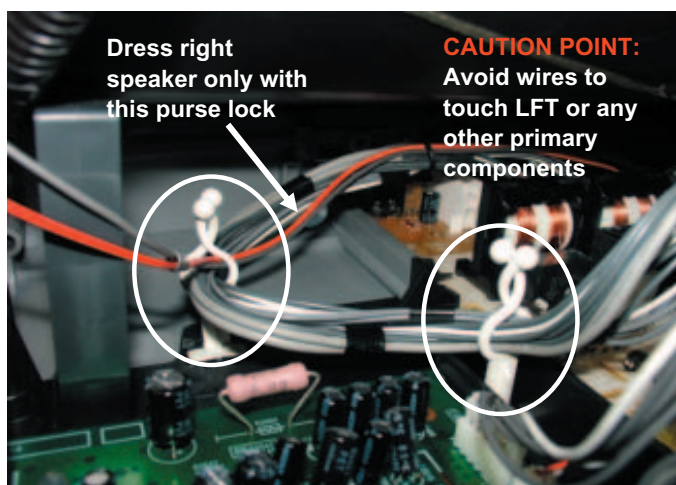
5/9

KV-21FA340/21FA540 MODELS ONLY

21FA540/540C/340/340C



Dress 3P (HC/CN2403~K1/CN2405), 4P (HC/CN2401~K1/CN2400), 12P harness (HC/CN2005~MT/CN303) & Right speaker using a purse lock (3-703-982-02) as shown in picture.



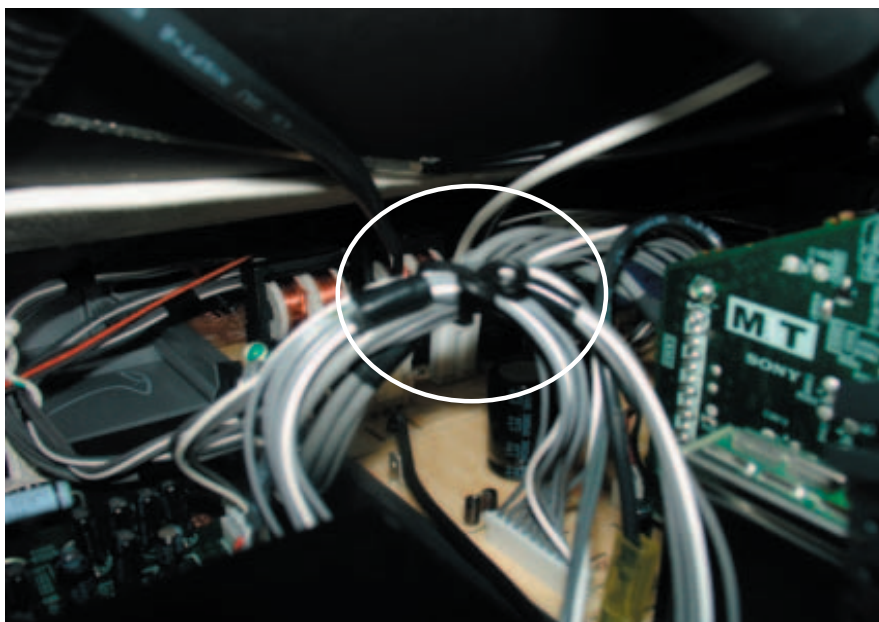
- Dress 3P (HC/CN2403~K1/CN2405), 4P (HC/CN2401~K1/CN2400), 12P harness (HC/CN2005~MT/CN303) & Right speaker using two purse lock (4-072-499-12) to avoid primary circuit.

Rev 1.1

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KV-21FA340/21FA540 MODELS ONLY

21FA540/540C/340/340C

**For FA540/340C**

Dress 3P (K1/CN2402~A/CN412), 5P (A/CN201~K1/CN2600), 10P (A/CN411~K1/CN2401), 3P (HC/CN2403~K1/CN2405), 4P (HC/CN2401~K1/CN2400), 12P harness (HC/CN2005~MT/CN303) using a 5mm purse lock (3-703-981-02)

For FA340/340C

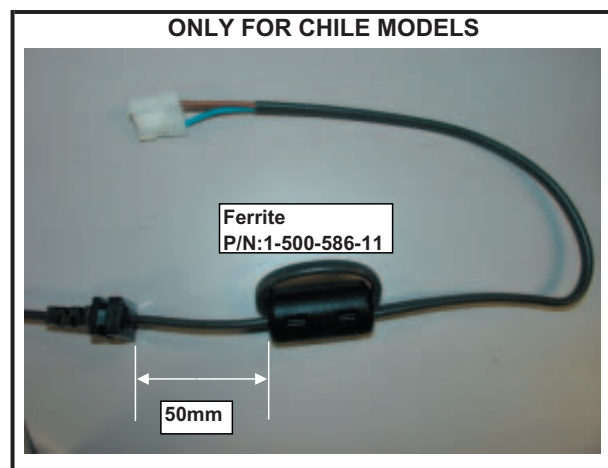
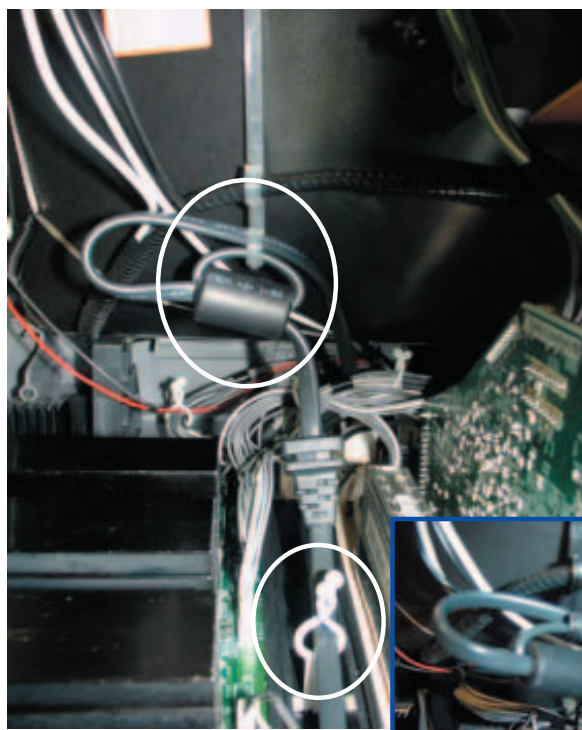
Dress 3P (K2/CN3404~A/CN412), 10P (A/CN411~K2/CN3405), 3P (HC/CN2403~K2/CN3402), 4P (HC/CN2401~K2/CN3401), 12P harness (HC/CN2005~MT/CN303) using a 5mm purse lock (3-703-981-02)

Rev 1.1

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KV-21FA340/21FA540 MODELS ONLY

21FA540/540C/340/340C



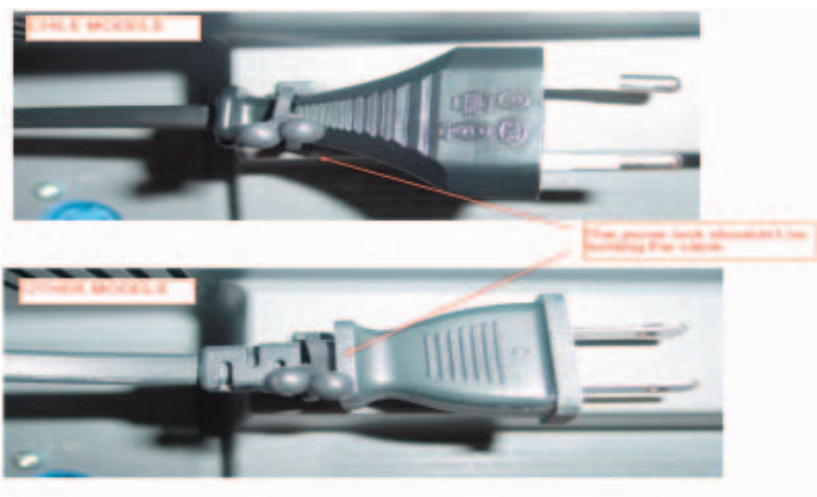
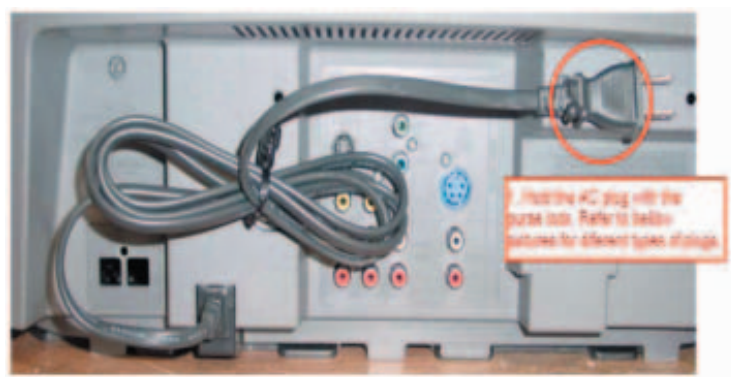
Dress AC-Cord wire through DGC band lower hook and using a purse lock (4-072-499-11) as shown in picture.

Rev 1.1

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KV-21FA340/21FA540 MODELS ONLY

21FA540/540C/340/340C

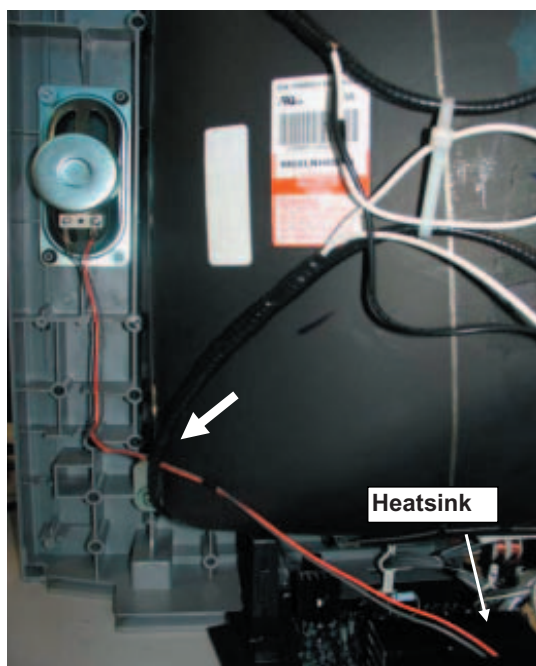


Rev 1.1

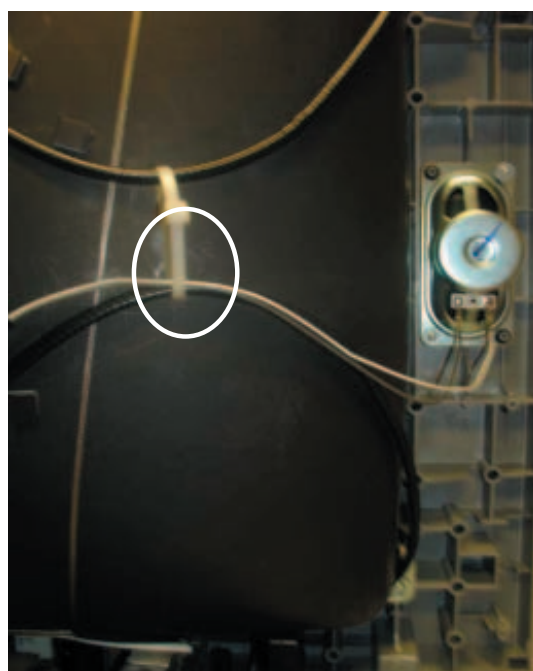
9/9

KV-29FA340/29FA540 MODELS ONLY

29FA540/540C/340/340C



Pass right speaker under DGC & over heatsink as shown in picture.



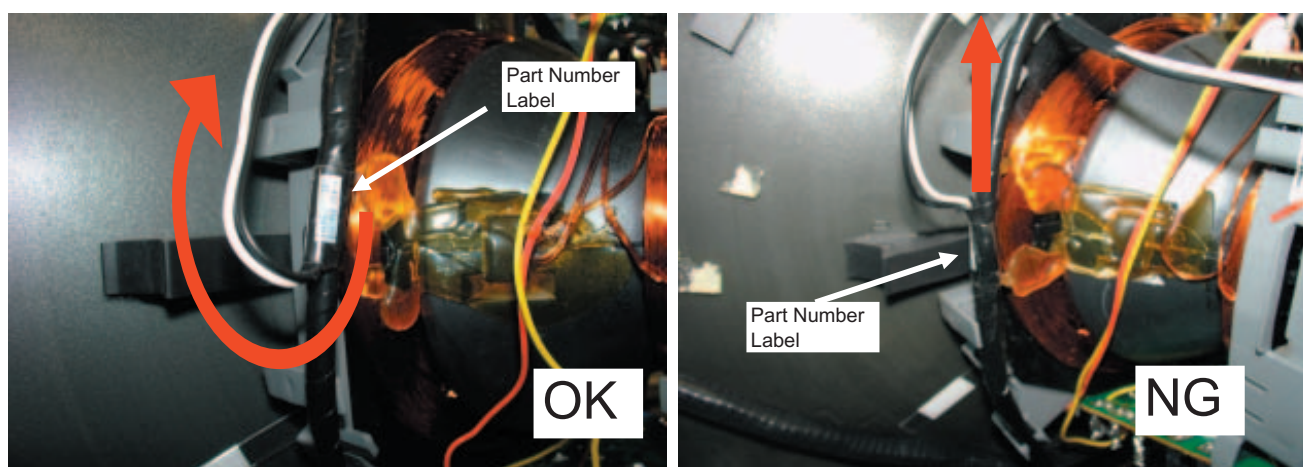
Dress left speaker wire through DGC's tie wrap.

Rev 1.1

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KV-29FA340/29FA540 MODELS ONLY

29FA540/540C/340/340C



CAUTION POINT: Install Rotation coil in the correct position as shown in picture.

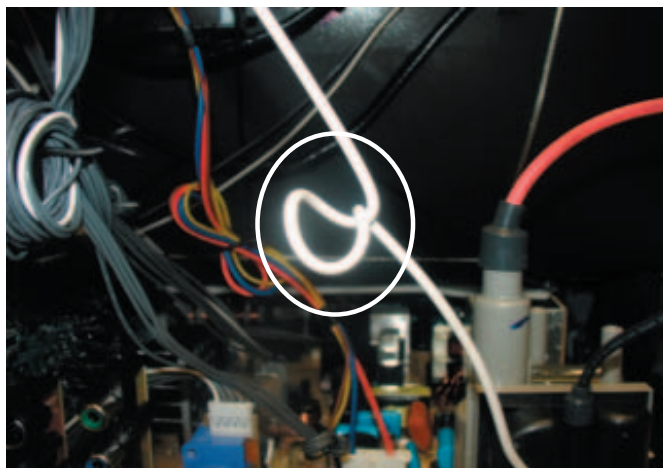
NOTE: If Rotation coil is inverted, tilt correction (by menu) will work in different direction.

Rev 1.1

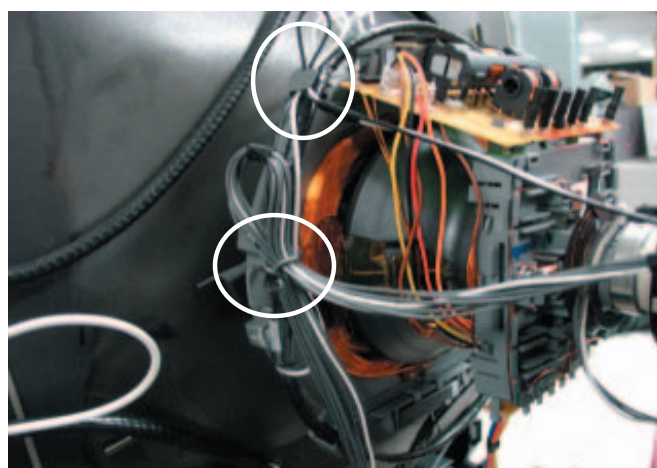
3/11

KV-29FA340/29FA540 MODELS ONLY

29FA540/540C/340/340C



Dress G2 wire twist once as picture shown, do not over stress wire.



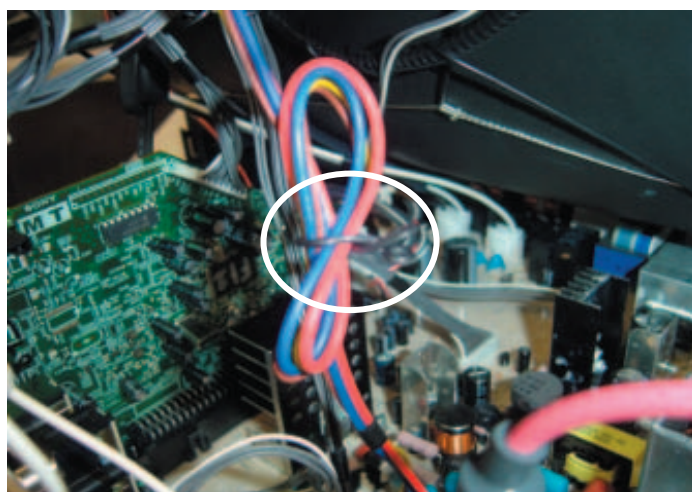
- Fix RGB harness (MT/CN301~C/CN705) to rotation coil using a 9mm purse lock (3-703-982-02).
- Dress Rotation coil lead wire through DY clip as shown in picture.

Rev 1.1

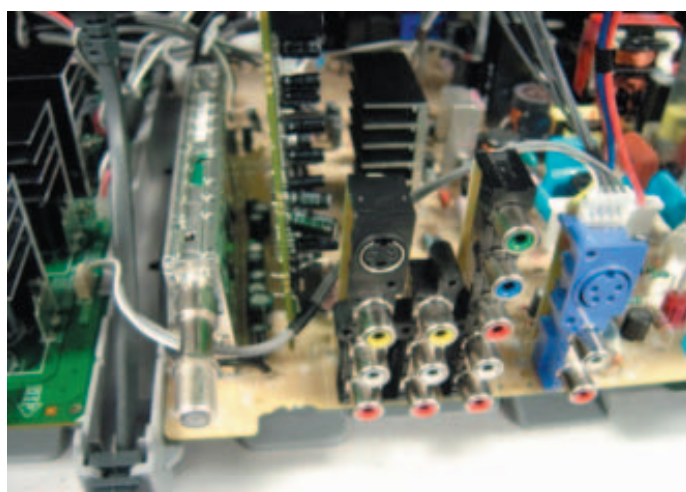
4/11

KV-29FA340/29FA540 MODELS ONLY

29FA540/540C/340/340C



Dress DY's lead wire using a 9mm
purse lock (3-703-982-02)



Dress subwoofer harness (K1/CN2403
or K2/CN3403~A/J207) pass under F-
Pin, behind video jacks & over AC cord
as picture shown.

Rev 1.1

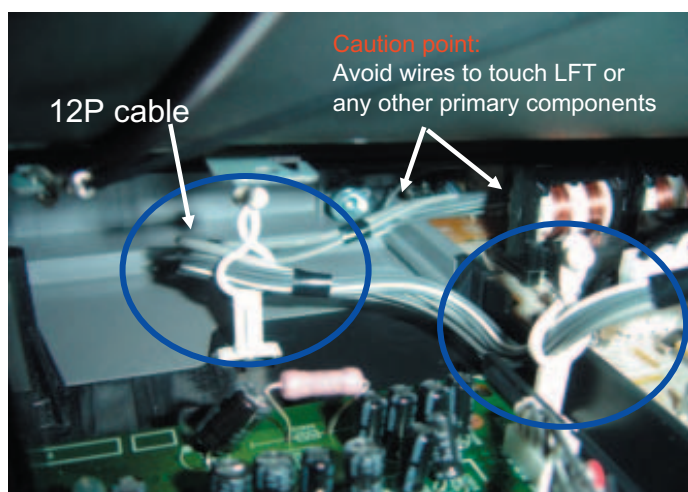
5/11

KV-29FA340/29FA540 MODELS ONLY

29FA540/540C/340/340C



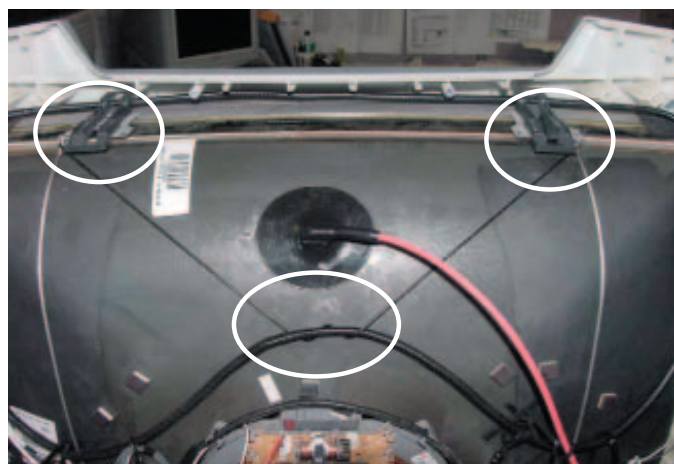
- Dress VM & Heater harnesses using a 9mm purse lock (3-703-982-02) as picture shown.



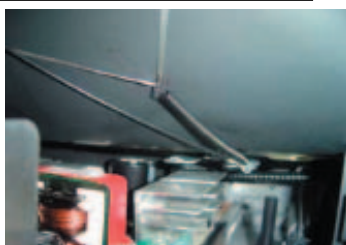
- Dress 12P (HC/CN2005~MT/CN303) through purse lock (4-072-499-12) as shown in picture.

Rev 1.1

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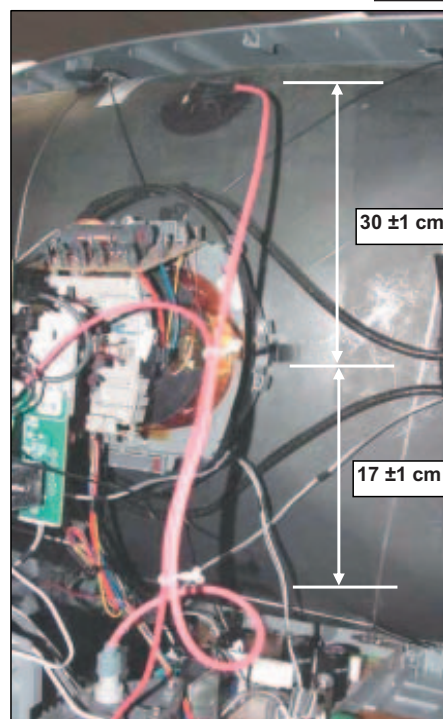
KV-29FA340/29FA540 MODELS ONLY

Fix DGC coils using (2) strain cables add 2 turns, hook cables on outer CRT hooks, Use 1 in upper coil and 1 in lower coil. Hook CRT ground wire (top) and springs(bottom) on outer hooks



Rev 1.1

29FA540/540C/340/340C



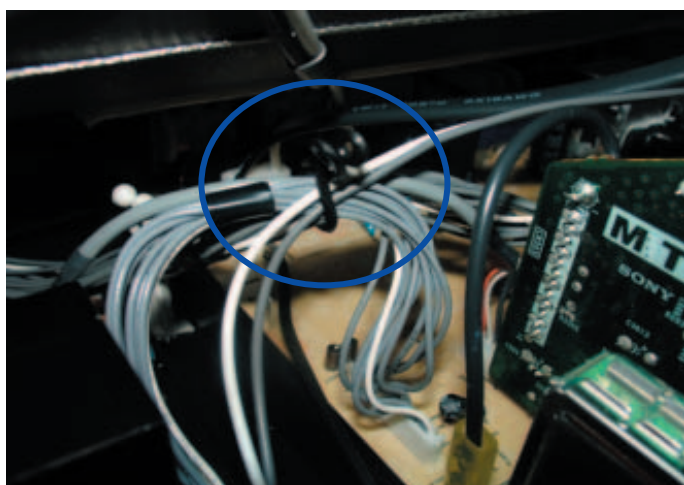
Dress together focus lead and HV cable using (2) 5mm (3-703-981-02)

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KV-29FA340/29FA540 MODELS ONLY

29FA540/540C/340/340C

ONLY FOR FA340



- Dress 10P(A/CN411~K2/CN3405), 3P (A/CN412~K2/CN3404) & Left speaker harnesses using a 9mm purse lock (3-703-982-02) as shown in picture.

ONLY FOR FA540



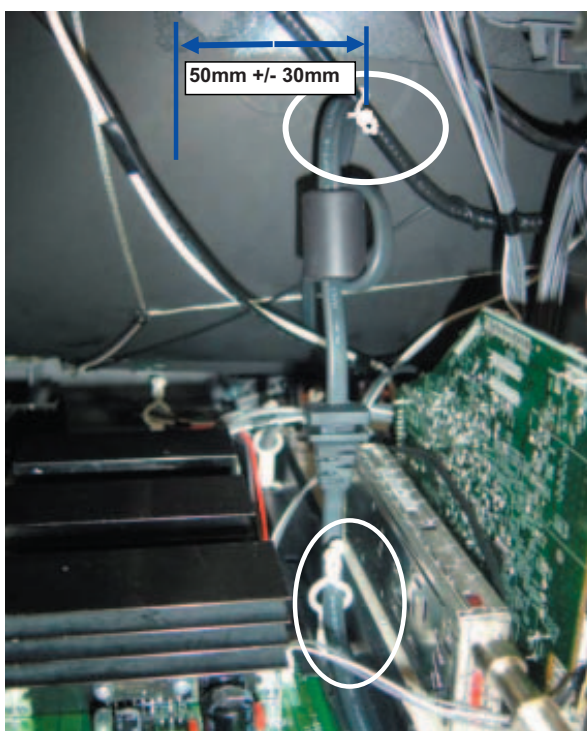
- Dress 10P(A/CN411~K1/CN2401), 5P (A/CN201~K1/CN2600), 3P (A/CN412~K1/CN2402) & Left speaker harnesses using a 9mm purse lock (3-703-982-02) as shown in picture.

Rev 1.1

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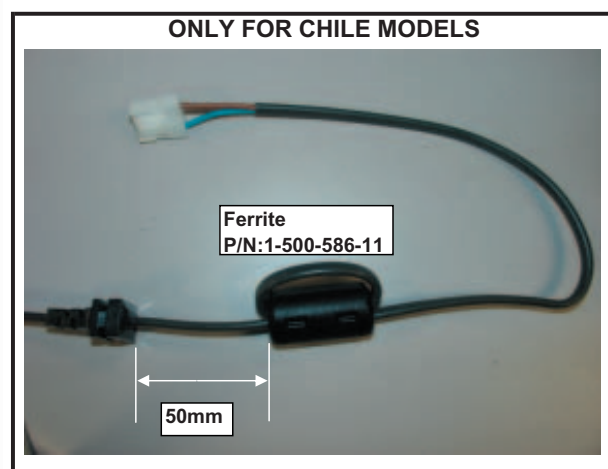
KV-29FA340/29FA540 MODELS ONLY

29FA540/540C/340/340C



Fix AC-Cord to DGC using a 11mm purse lock (3-703-983-02) & through purse lock (4-072-499-12) as shown in picture. Take as reference carbon line of CRT.

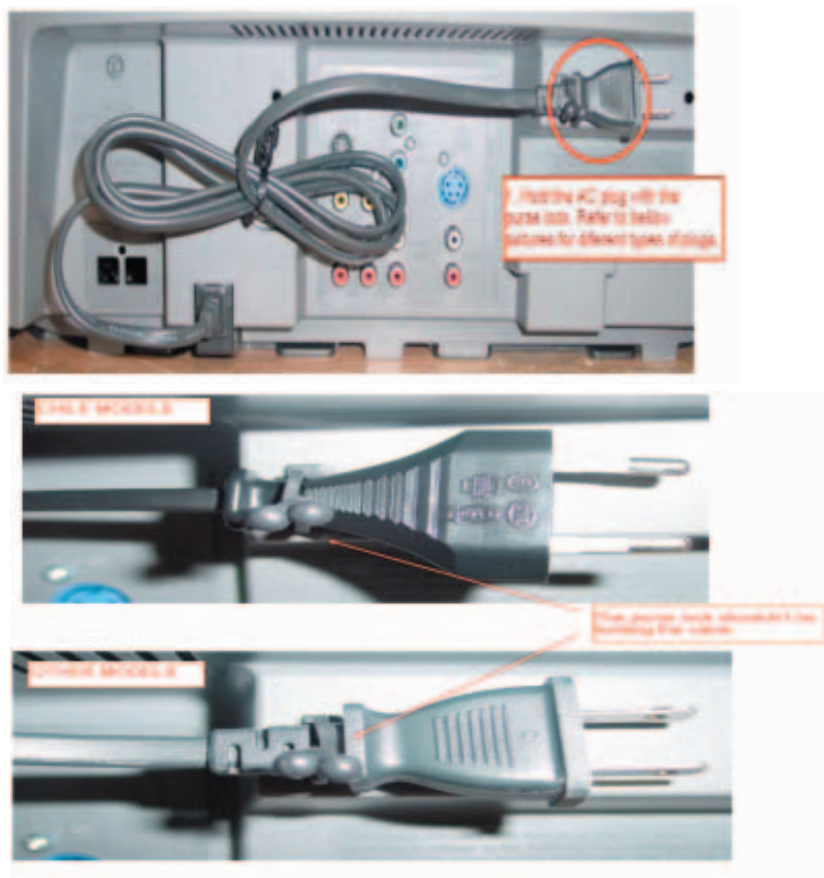
Rev 1.1



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KV-29FA340/29FA540 MODELS ONLY

29FA540/540C/340/340C



Rev 1.1

10/11

KV-29FA340/29FA540 MODELS ONLY

29FA540/540C/340/340C



Dress CRT groun through rotation coil
and pass beside V board as shown in
picture.

Rev 1.1

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SECTION 2: SET-UP ADJUSTMENTS

The following adjustments should be made when a complete realignment is required or a new picture tube is installed.

These adjustments should be performed with rated power supply voltage unless otherwise noted.

Set the controls as follows unless otherwise noted:

VIDEO MODE: Pro

PICTURE CONTROL: Normal

BRIGHTNESS CONTROL: Normal

Perform the adjustments in order as follows:

1. Beam Landing
2. Convergence
3. Focus
4. Screen (G2)
5. White Balance

Note Test Equipment Required:

1. Color Bar Pattern Generator
2. Degausser
3. DC Power Supply
4. Digital Multimeter

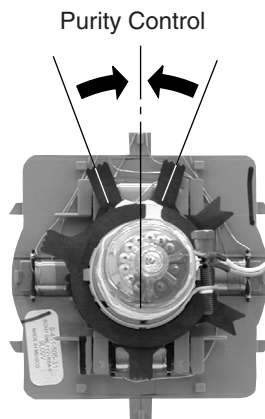
2-1. BEAM LANDING

Before beginning adjustment procedure:

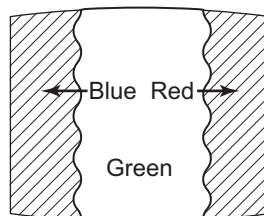
1. Feed in the white pattern signal.

Adjustment Procedure

1. Input a raster signal with the pattern generator.
2. Loosen the deflection yoke mounting screw, and set the purity control to the center as shown below:

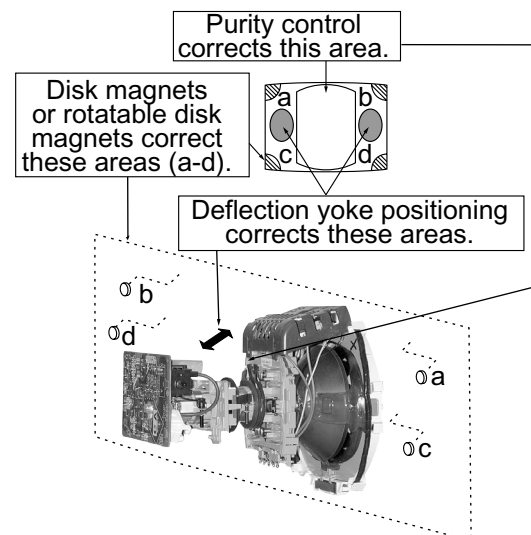
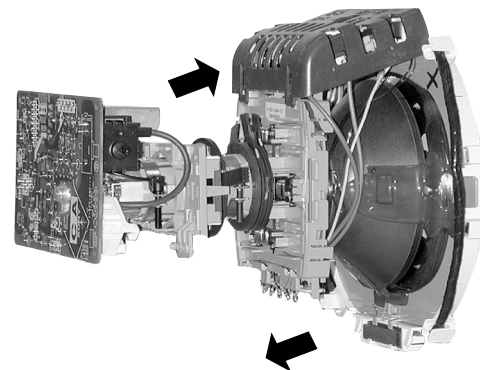


3. Turn the raster signal of the pattern generator to green.
4. Move the deflection yoke backward, and adjust with the purity control so that green is in the center and red and blue are even on both sides.



5. Move the deflection yoke forward, and adjust so that the entire screen becomes green.

6. Switch over the raster signal to red and blue and confirm the condition.
7. When the position of the deflection yoke is determined, tighten it with the deflection yoke mounting screw.
8. If landing at the corner is not right, adjust by using the disk magnets.



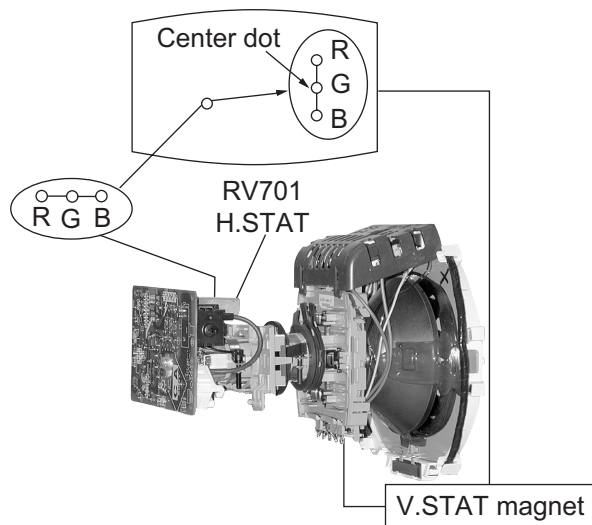
2-2. CONVERGENCE

Before starting convergence adjustments:

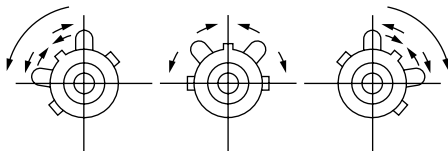
1. Perform FOCUS, VLIN and VSIZE adjustments.
2. Set BRIGHTNESS control to minimum.
3. Feed in dot pattern.

Vertical Static Convergence

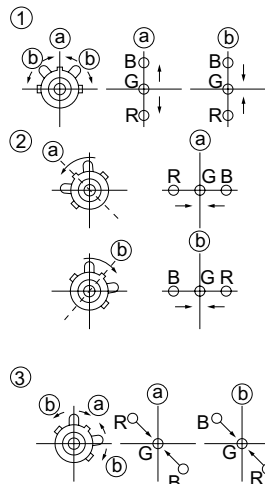
1. Adjust V. STAT magnet to converge red, green and blue dots in the center of the screen.



2. Tilt the V. STAT magnet and adjust static convergence to open or close the V. STAT magnet.



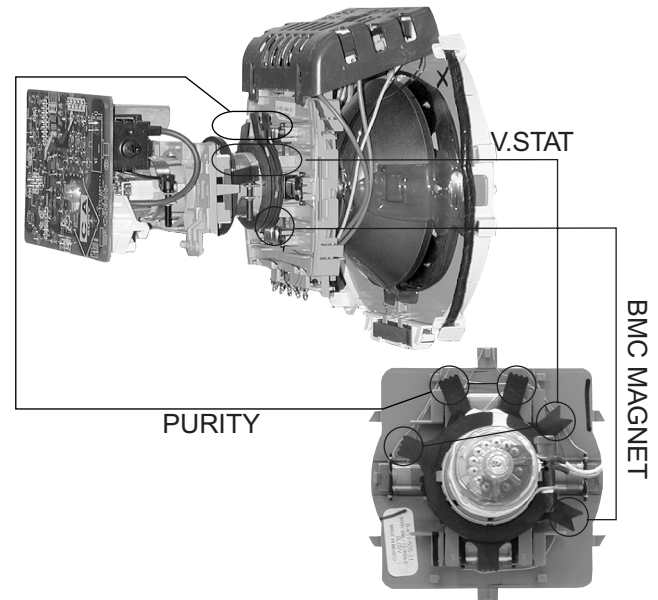
When the V. STAT magnet is moved in the direction of arrow a and b, red, green, and blue dots move as shown below:



Horizontal Static Convergence

If the blue dot does not converge with the red and green dots, perform the following:

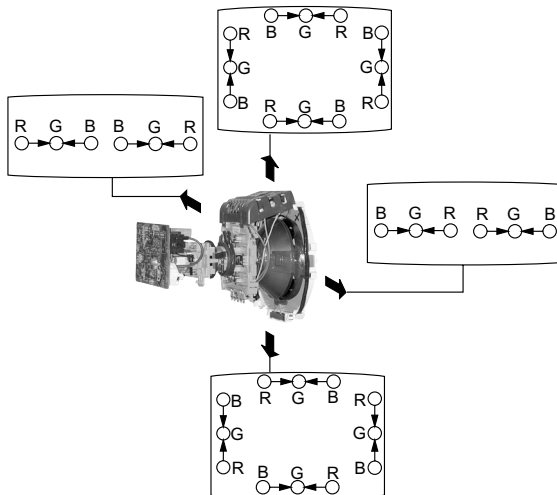
1. Move H STAT VR magnet (a) to correct insufficient H.Static convergence.



Dynamic Convergence Adjustment

Before performing this adjustment, perform Horizontal and Vertical Static Convergence Adjustment.

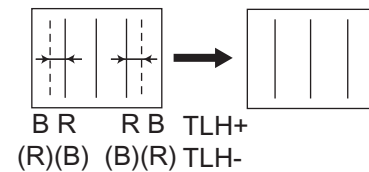
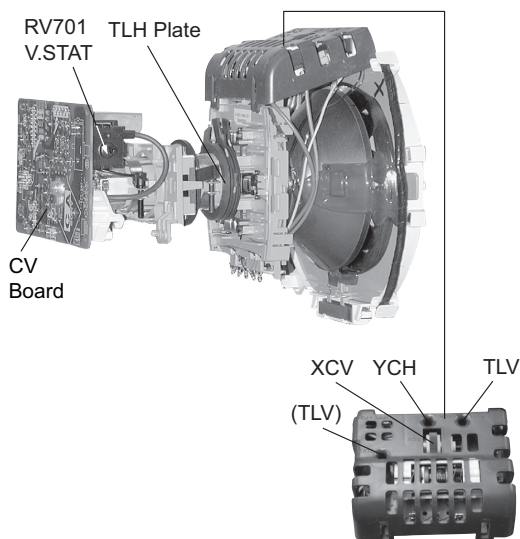
1. Slightly loosen deflection yoke screw.
2. Remove deflection yoke spacers.
3. Move the deflection yoke for best convergence as shown below:



4. Tighten the deflection yoke screw.
5. Install the deflection yoke spacers.

TLH Plate Adjustment

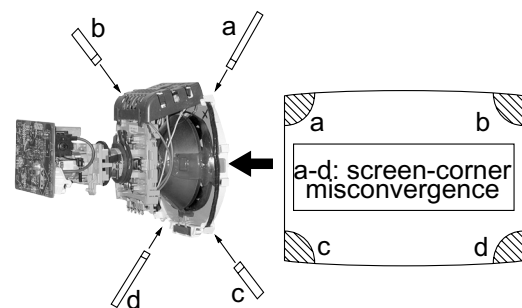
1. Input crosshatch pattern.
2. Adjust PICTURE QUALITY to standard, PICTURE and BRIGHTNESS to 50%, and OTHER to standard.
3. Adjust the Horizontal Convergence of red and blue dots by tilting the TLH plate on the deflection yoke.



4. Adjust XCV core to balance X axis.
 5. Adjust YCH VR to balance Y axis.
 6. Adjust vertical red and blue convergence with V.TILT (TLV VR.)
- Note: Perform adjustment 3-6 while tracking OSD items 1 and 2.

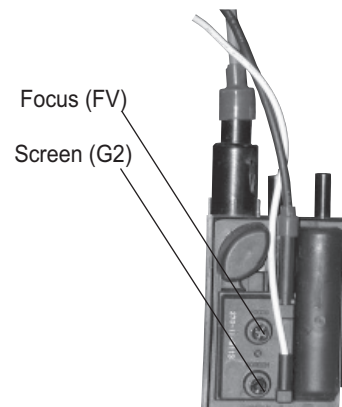
Screen-Corner Convergence

1. Affix a permalloy assembly corresponding to the misconverged areas:



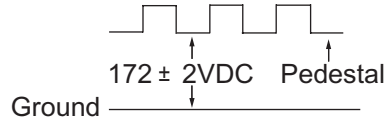
2-3. FOCUS

1. Adjust FOCUS control for best pictures.



2-4. SCREEN (G2)

1. Input a dot pattern.
2. Set the PICTURE and BRIGHTNESS controls at minimum and COLOR control at normal.
3. Adjust SBRT, GCUT, BCUT in service mode with an oscilloscope as shown below so that voltages on the red, green, and blue cathodes are $172 \pm 2\text{VDC}$.



4. Observe the screen and adjust SCREEN (G2) VR in FBT to obtain the faintly visible background of dot signal.

SECTION 3: SAFETY RELATED ADJUSTMENTS

3-1. R530, R531 CONFIRMATION METHOD (HV HOLD-DOWN CONFIRMATION) AND READJUSTMENTS

The following adjustments should always be performed when replacing the following components which are marked with  on the schematic diagram:

Part Replaced ()	Adjustment ()
C531, C532, D519, D520, D521, IC501, IC600, PH602, R529, R530, R531, R532, R533, R550, T503 (FBT), T504 (DFT)	HV HOLD-DOWN R530, R531

Preparation Before Confirmation

- 1. Using a Variac, apply AC input voltage: 120 +/- 2.0 VAC.
- 2. Turn the POWER switch ON.
- 3. Input a white signal and set the PICTURE and BRIGHT controls to maximum.
- 4. Confirm that the voltage of more than 23.0 VDC appears between TP85 and ground on the A Board.

Hold-Down Operation Confirmation

- 1. Connect the current meter between Pin 11 of the FBT (T503) and the PWB land where Pin 11 would normally attach. (See Figure 1).
- 2. Input a dot signal and set PICTURE and BRIGHTNESS to minimum: IABL = 2175 + 100/ -325 µA.
- 3. Confirm the voltage of A Board TP91 is 134.6 ± 1.0 VDC.
- 4. Connect the digital voltmeter and the DC power supply to TP85 and ground. (See Figure 1).
- 5. Increase the DC power voltage gradually until the picture blanks out.
- 6. Turn DC power source off immediately.
- 7. Read the digital voltmeter indication: (standard = 27.24 + 0.0/ - 0.1 VDC).
- 8. Input a white signal and set PICTURE and BRIGHTNESS to maximum: IABL = 2175 + 100/ -325 µA.
- 9. Repeat steps 4 to 7.

Hold-Down Readjustment

If the setting indicated in Step 2 of Hold-Down Operation Confirmation cannot be met, readjustment should be performed by altering the resistance value of R530, R531 component marked with .

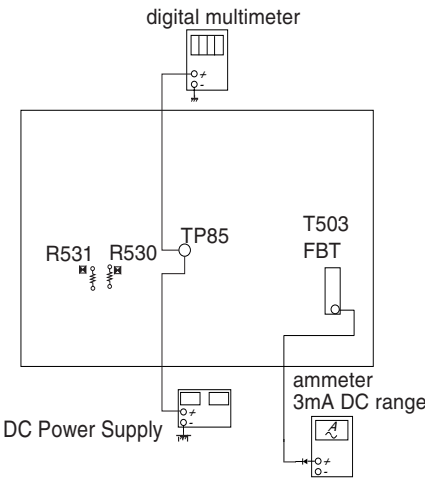


Figure 1

3-2. B+ VOLTAGE CONFIRMATION AND ADJUSTMENT

Always perform the following adjustments when replacing the following components, which are marked with  on the schematic diagram on the A Board:

Adjustment ()
A BOARD IC600, PH602

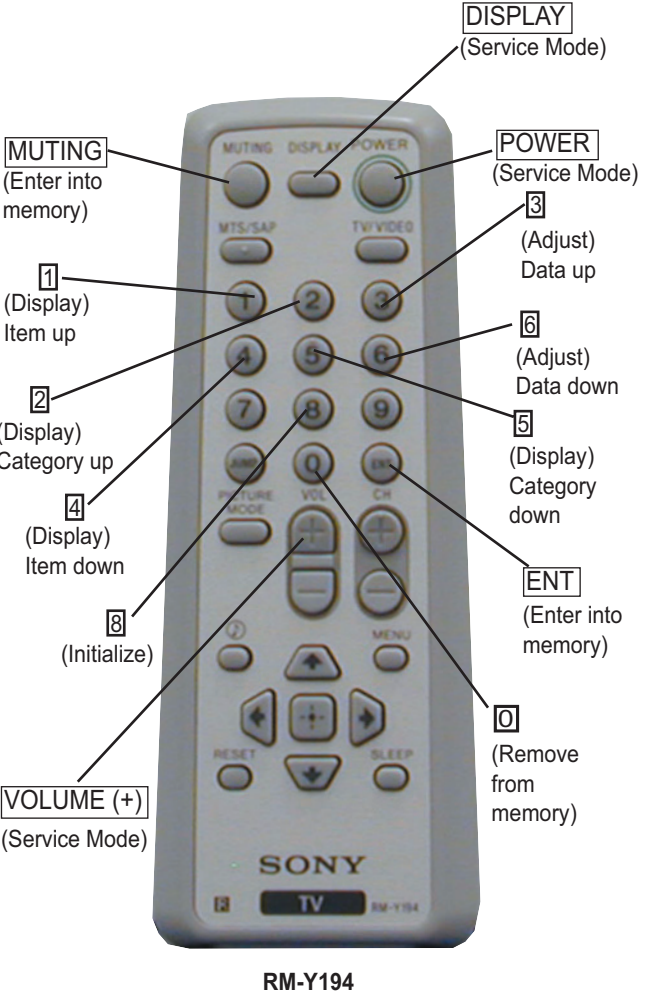
- 1. Using a Variac, apply AC input voltage: 130 + 2.0/-0.0 VAC
- 2. Input a monoscope signal.
- 3. Set the PICTURE control and the BRIGHT control to minimum.
- 4. Confirm the voltage on A Board between TP23 and ground is less than 136.5 VDC.
- 5. If step 4 is not satisfied, replace R530 and R531 on A Board and repeat the above steps.

SECTION 4: CIRCUIT ADJUSTMENTS

Electrical Adjustments by Remote Commander

Use the Remote Commander (RM-Y194) to perform the circuit adjustments in this section.
Test Equipment Required: 1. Pattern generator 2. Frequency counter 3. Digital multimeter 4. Audio oscillator

4-1. REMOTE ADJUSTMENT BUTTONS AND INDICATORS



4-2. ACCESSING THE SERVICE ADJUSTMENT MODE

- Standby mode (Power off).
 - Press the following buttons on the remote commander within a second of each other:
DISPLAY → Channel **5** → Sound Volume **4** → **POWER**
- The screen displays the first service data device OSD item.

	Device	Signal Type	Channel Type
OSD Item	DEF HSIZ	NTSC 1:35	VIDEO1 NVM:OK
Initial Data Value	M6J586MK-050FP		F1.2

- On the Remote Commander press **2** or **5** to select the device.
- Press **1** or **4** to select the OSD.
- Press **3** or **6** to change the data value.
- Press **MUTING** then **ENTER** to write into memory.

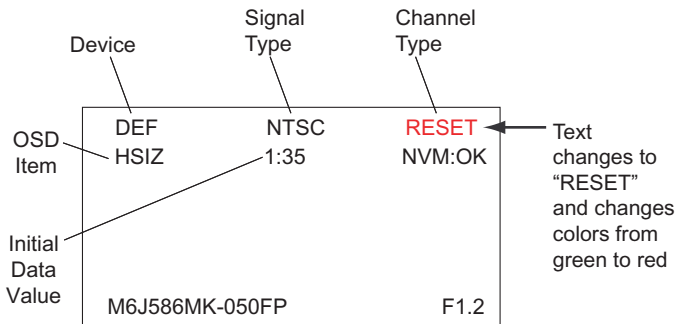
	Device	Signal Type	Channel Type
OSD Item	DEF HSIZ	NTSC 1:35	WRITE NVM:OK
Initial Data Value	M6J586MK-050FP		F1.2

Text changes to "WRITE" and changes colors from green to red

Service Adjustment Mode Memory

Use the following procedure when adjusting IDs 0-7 and when replacing and adjusting IC002.

1. Access Service Adjustment Mode.
2. Press **8** then **ENTER** on the Remote Commander to initialize.



The TV powers off after completing the initialization process.

4-3. CONFIRMING SERVICE ADJUSTMENT CHANGES

1. After completing adjustments, pull out the plug from the AC outlet, then replace the plug in the AC outlet again.
2. Access Service Adjustment Mode.
3. Using the buttons on the Remote Commander, locate the adjusted OSD items again to confirm they were adjusted.

4-4. SERVICE DATA LISTS

Device "DEF"					
Item#	OSD	DETAIL	note	Initial Date (DEC) 29FA	Initial Date (DEC) 21FA
1	HSIZ	H SIZE(EW DC)	RF:20 AV:20 YUV:20	42/43/43	29/27/27
2	HPOS	H POSITION	RF:29/AV:29/YUV:29	21/22/22	13/15/14
3	VSIZ	V RAMP SIZE	RF:1B AV:1B YUV:1B	39/39/41	28/29/30
4	VPOS	V POSITION(RAMP DC)	RF:22/AV:22/YUV:22	34/34/34	29/28/28
5	VLIN	V LINEARITY		36	38
6	SCOR	S CORRECTION		51	35
7	VBOW	BOW		25	31
8	VANG	ANGLE		31	36
9	TRAP	EW TRAPESIUM		30	36
10	PAMP	EW PIN		28	23
11	UPIN	UPPER PIN		30	30
12	LPIN	LOWER PIN		29	31
13	TROT	TROT		108	71
14	HBLK	H BLK mode select		00	00
15	HBLK	HBLK rear timing	RF:19/AV:19/YUV:19	25/25/25	30/28/32
16	LBLK	HBLK front timing	RF:34/AV:34/YUV:34	52/52/52	49/50/51
17	VBLK	V BLK width		03	03
18	HMSK	TOP VEND(when MACROVISION)prevent OFF		00	00
19	HDW	H PULSE WIDTH(25u/19u)		1	1
20	AFC	AFC GAIN		00	00
21	APCI	APCI TIME CONSTANT	RF:07/AV:07/YUV:07	03/03/03	03/03/03
22	APCW	APCI PULL IN WIDE		01	01
23	CDMD	V DET WINDOW SW TIMING		01	01
24	HSS	SYNC SLICE LEVEL(H sepa)		00	00
25	VSS	SYNC SLICE LEVEL(V sepa)		03	03
26	SLUD	Auto Slice level UP/DOWN		00	00
27	JPSW	Jump SW		00	00
28	HOSC	H VCO fo offset ADJUST OFFSET		03	03
29	EHT	EHT		04	04
30	EHTG	EHT MODE		01	01
31	SLOH	LPF SYNC H		01	01
32	SLOY	LPF SYNC V		03	03
33	SLOP	LPF SYNC		03	03
34	SLVC	LPF SYNC VCOIN OFF		00	00
35	SLHC	LPF SYNC HCOIN OFF		00	00
36	VF50	VFREERUN 50Hz		00	00
37	VSET	V FREQ SET 50/60/AUTO		00	00
Device "16-9"					
Item#	OSD	DETAIL	note	Initial Date (DEC)	Initial Date (DEC)
1	VSIZ	V RAMP SIZE		44	30
2	VPOS	V POSITION(RAMP DC)		37	31
3	VLIN	V LINEARITY		35	35
4	SCOR	S CORRECTION		26	19
5	TRAP	EW TRAPESIUM		29	36
6	PAMP	EW PIN		13	8
7	UPIN	UPPER PIN		30	33
8	LPIN	LOWER PIN		31	31
9	ABLG	ABL GAIN		15	15
10	SCON	SUB CONTRAST LEVEL		10	14
11	VPW	Jump Pulse Width		01	01
12	VANG			32	31

Device "VP1"					
Item#	OSD	DETAIL	note	Initial Data (DEC)	Initial Data (DEC)
1	RDRV	R DRIVE		84	74
2	GDRV	G DRIVE when Color Temp. is "Cool" and "Neutral"	RF:AV:40/YUV:2F	66/67	72/69
3	BDRV	B DRIVE when Color Temp. is "Cool" and "Neutral"	RF:AV:40/YUV:3E	65/68	68/69
4	RCUT	Hardware AKB(R) CMP DATA		100	100
5	GCUT	Hardware AKB(G) CMP DATA when Color Temp. is "Cool" and "Neutral"	RF:AV:82/YUV:43	69/68	83/79
6	BCUT	Hardware AKB(B) CMP DATA when Color Temp. is "Cool" and "Neutral"	RF:AV:82/YUV:31	74/73	78/77
7	SCON	SUB CONTRAST LEVEL		10	14
8	SHUE	SUB TINT(HUE)	RF:0A/AV:0A/YUV:0A	11/9/7	10/08/07
9	SCOL	SUB COLOR LEVEL for Not NR	RF:10/AV:10/YUV:10	8/10/26	11/12/21
10	SBR7	SUB BRIGHTNESS	RF:AV:10/YUV:10	13/16	11/16
11	RON	R OUTPUT ON (0:R Output OFF 1:R Output ON)		01	01
12	GON	G OUTPUT ON (0:G Output OFF 1:G Output ON)		01	01
13	BON	B OUTPUT ON (0:B Output OFF 1:B Output ON)		01	01
14	BLLV	BLUE STRETCH(00:no <-> 11:deep) only Color Temp "Cool"		01	01
15	BLLM	BLUE STRETCH Y LEVEL LIMIT LEVEL		00	00
16	MTRX	MATRIX RATIO SELECT		01	01
17	AXIS	R-Y PHASE OFFSET		52	52
18	GYG	G-Y Gain		00	00
19	GYP	G-Y PHASE		00	00
20	SSHO	SUB SHARPNESS GAIN(OVER) RF/VIDEO	RF:0C/AV:0C/YUV:0C	12/14/2	12/14/2
21	SSHP	SUB SHARPNESS GAIN(PRE) RF/VIDEO	RF:12/AV:12/YUV:12	16/19/13	16/19/13
22	SHPF	SHARPNESS 64/00:2 CLK <-> 11:5 CLK	RF:01/AV:01/YUV:01	0/1/0	0/1/0
23	SHCL	SHARPNESS CORING LEVEL		01	01
24	SHMX	SHARPNESS LIMITTER LEVEL		15	15
25	AKBD	AKB Self Diagnostic Counter(1sec)		05	05
26	AKBS	AKB Switch (0:AKB OFF 1:H/W AKB ON)		01	01
27	REFF	AKB REFPLS timing (*0/Fix when 16:9On)		00	00
28	YNRC	YNR LIMITER LEVEL		15	15
29	VYNR	VYNR LIMITER LEVEL		00	00
30	BKON	BLACK STRETCH ON		01	01
31	BKRH	BLACK STRETCH DETECTOR TIME CONSTANT1		Pallette	Pallette
32	BKRL	BLACK STRETCH DETECTOR TIME CONSTANT2		Pallette	Pallette
33	BKDP	BLACK STRETCH START POINT		Pallette	Pallette
34	BKSP	BLACK STRETCH POINT		2	2
34	UOFS	U IN OFFSET	RF:AV:20/YUV:2A	32/75	32/56
35	VOFS	V IN OFFSET	RF:AV:20/YUV:2B	96/64	96/79
36	TAKE	BPF Po UP		00 / 00 / 00	00 / 00 / 00
37	TAKW	BPF Po UP WIDTH		00 / 01 / 00	00 / 01 / 00

Device "VP2"					
Item#	OSD	DETAIL	note	Initial Data (DEC)	Initial Data (DEC)
1	VMOF	VM LEVEL at "Off" Setting		02	02
2	VMLO	VM LEVEL at "Low" Setting		05	05
3	VMHI	VM LEVEL at "High" Setting		11	11
4	VMDL	VM DELAY	RF:06/AV:06/YUV:06	11/11/8	11/11/8
5	VMPL	VM PORALITY		01	01
6	VMWD	VM WIDTH		00	00
7	VMCL	VM CORING LEVEL		00	00
8	VMMX	VM LIMITER LEVEL		15	15
9	CKLV	COLOR KILLER VTH		01	01
10	CKON	FORCE KILLER		00	00
11	VACL	V APERTURE CORING LEVEL		00	00
12	VAGA	V APERTURE GAIN LEVEL		Pallette	Pallette
13	VAMX	V APERTURE LIMITER LEVEL		15	15
14	GAMM	GAMMA(00:no <->11:deep)		Pallette	Pallette
15	YDLY	Y DELAY TIME		03	03
16	CDLY	C DELAY		02	02
17	BGPP	BGP(for C DECODER)TIMING		11	11
18	GDOF	G DRIVE OFFSET only Color Temp. "Warm"		18	18
19	BDOF	B DRIVE OFFSET only Color Temp. "Warm"		31	31
20	GCOF	GCUT CMP DATA OFFSET only Color Temp. "Warm"		02	02
21	BCOF	BCUT CMP DATA OFFSET only Color Temp. "Warm"		04	04
22	GDOC	G DRIVE OFFSET only Color Temp. "Cool"		06	06
23	BDOC	B DRIVE OFFSET only Color Temp. "Cool"		12	12
24	GCOC	GCUT CMP DATA OFFSET only Color Temp. "Cool"		11	11
25	BCOC	BCUT CMP DATA OFFSET only Color Temp. "Cool"		38	38
24	DCTV	DCTTRANSFER VTH		03	03
23	DCTG	DCTTRANSFER GAIN		Pallette	Pallette
Device "Y/C"					
Item#	OSD	DETAIL	note	Initial Data (DEC)	Initial Data (DEC)
1	ALFA	ADAPTIVE DET SENSITIVITY		01	01
2	YCND	YC SEPA FORCE SELECT00:ADAPTIVE 01:H 10:V 11:HV)		00	00

Device "NR"					
Item#	OSD	DETAIL	note	Initial Data (DEC)	Initial Data (DEC)
1	NRBP	NOISE DET BPF		00	00
2	NRIS	NOISE DET POS		00	00
3	NRDT	NOISE DET CORING LEVEL		01	01
4	INDX	WSL INDEX FOR MULTI LEVEL DATA SELECTION	Index 1/2/3	03 03 03	03 03 03
5	TRHI	TRIGGER LEVEL HIGH	Index 1/2/3	67 67 67	67 67 67
6	TRLO	TRIGGER LEVEL LOW	Index 1/2/3	87 87 87	87 87 87
7	SHCL	SHARPNESS NOISE CORING LEVEL for NR	Index 1/2/3	15 15 15	15 15 15
8	SHMX	SHARPNESS LIMITER LEVEL for NR	Index 1/2/3	07 07 07	07 07 07
9	YNRS	YNR ON for NR	Index 1/2/3	01 01 01	01 01 01
10	YNRC	YNR LIMITER LEVEL for NR	Index 1/2/3	15 15 15	15 15 15
11	VMHI	VM LEVEL at "High" Setting for NR	Index 1/2/3	07 07 07	07 07 07
12	VMCL	VM CORING LEVEL for NR	Index 1/2/3	00 00 00	00 00 00
13	VMMX	VM LIMITER LEVEL for NR	Index 1/2/3	07 07 07	07 07 07
14	VAGA	V APERTURE GAIN LEVEL for NR	Index 1/2/3	00 00 00	00 00 00
15	VAMX	V APERTURE LIMITER LEVEL	Index 1/2/3	04 04 04	04 04 04
16	VYNR	VYNR LIMITER LEVEL	Index 1/2/3	15 15 15	15 15 15
17	YDT	Y DITHER LEVEL	Index 1/2/3	00 00 00	00 00 00
18	GAMM	GAMMA(00:00 <-> 11:00) for NR	Index 1/2/3	00 00 00	00 00 00
19	WSTH	WEAK SIGNAL VTH for NR	Index 1/2/3	07 07 07	07 07 07
20	WSVA	WEAK SIGNAL VIDEO ATT for NR	Index 1/2/3	00 00 00	00 00 00
21	WSCA	WEAK SIGNAL CHROMA ATT for NR	Index 1/2/3	03 03 03	03 03 03
Device "PALLET" for "VIVID"					
Item#	OSD	DETAIL	note	Initial Data (DEC)	Initial Data (DEC)
1	VPIC	Picture(VIVID)		63	63
2	VBRI	Brightness(VIVID)		32	32
3	VCOL	Color(VIVID)		33	32
4	VHUE	Hue(VIVID)		31	31
5	VSHA	Sharpness(VIVID)		35	35
6	VVM	VM(VIVID)		02	02
7	VTRI	Color Temp(VIVID)		00	00
8	VAPA	Aperture G(VIVID)		07	07
9	VGMA	Gamma(VIVID)		02	02
10	VDCT	DCT LV(VIVID)		12	12
11	BKDP	BLACK STRETCH DEPTH(VIVID)		03	03
12	BKRC	BLACK ST TIME1 , BLACK ST TIME2(VIVID)		252	252
13	BKSP	BLACK STRETCH POINT(VIVID)		02	02
14	CONO	CONTRAST OFFSET for RP(VIVID)		02	02
15	COOF	Contrast Offset		00	00

Device "PALLET" for "STD"					
Item#	OSD	DETAIL	note	Initial Data (DEC)	Initial Data (DEC)
1	VPIC	Picture(STANDARD)		50	50
2	VBRI	Brightness(STANDARD)		31	31
3	VCOL	Color(STANDARD)		31	31
4	VHUE	Hue(STANDARD)		31	31
5	VSHA	Sharpness(STANDARD)		37	37
6	VVM	VM(STANDARD)		01	01
7	VTRI	Color Temp(STANDARD)		01	01
8	VAPA	Aperture G(STANDARD)		04	04
9	VGMA	Gamma(STANDARD)		01	01
10	VDCT	DCT LV(STANDARD)		09	09
11	BKDP	BLACK STRETCH DEPTH(STANDARD)		02	02
12	BKRC	BLACK ST TIME1 , BLACK ST TIME2(STANDARD)		252	252
13	BKSP	BLACK STRETCH POINT(STANDARD)		01	01
14	CONO	CONTRAST OFFSET for RF(STANDARD)		00	00
15	COOF	Contrast Offset		00	00
Device "PALLET" for "MOVIE"					
Item#	OSD	DETAIL	note	Initial Data (DEC)	Initial Data (DEC)
1	VPIC	Picture(MOVIE)		37	37
2	VBRI	Brightness(MOVIE)		28	28
3	VCOL	Color(MOVIE)		31	31
4	VHUE	Hue(MOVIE)		31	31
5	VSHA	Sharpness(MOVIE)		34	34
6	VVM	VM(MOVIE)		01	01
7	VTRI	Color Temp(MOVIE)		02	02
8	VAPA	Aperture G(MOVIE)		03	03
9	VGMA	Gamma(MOVIE)		01	01
10	VDCT	DCT LV(MOVIE)		09	09
11	BKDP	BLACK STRETCH DEPTH(MOVIE)		01	01
12	BKRC	BLACK ST TIME1 , BLACK ST TIME2(MOVIE)		252	252
13	BKSP	BLACK STRETCH POINT(MOVIE)		01	01
14	CONO	CONTRAST OFFSET for RF(MOVIE)		00	00
15	COOF	Contrast Offset		00	00
Device "PALLET" for "Pro"					
Item#	OSD	DETAIL	note	Initial Data (DEC)	Initial Data (DEC)
1	VPIC	Picture(Pro)		31	31
2	VBRI	Brightness(Pro)		31	31
3	VCOL	Color(Pro)		31	31
4	VHUE	Hue(Pro)		31	31
5	VSHA	Sharpness(Pro)		31	31
6	VVM	VM(Pro)		00	00
7	VTRI	Color Temp(Pro)		01	01
8	VAPA	Aperture G(Pro)		00	00
9	VGMA	Gamma(Pro)		00	00
10	VDCT	DCT LV(Pro)		02	02
11	BKDP	BLACK STRETCH DEPTH(Pro)		01	01
12	BKRC	BLACK ST TIME1 , BLACK ST TIME2(Pro)		252	252
13	BKSP	BLACK STRETCH POINT(Pro)		00	00
14	CONO	CONTRAST OFFSET for RF(Pro)		00	00
15	COOF	Contrast Offset		00	00

Device *ASIC*

Item#	OSD	DETAIL	Initial Data (DEC) 38FA	Initial Data (DEC) 31FA
1	YMRB	YMR ON	0	0
2	CLPB	CLAMP CONTROL SW (0:CLAMP OFF 1:CLAMP AUTO 2:CLAMP ON)	1	1
3	VMG2	MODULATOR FEEDBACK GAIN CONTROL	1	1
4	CLPT	CLAMP AUTO ON KEEP TIMER COUNT (@100ms)	15	15
5	AASL	C DECODER TIME CONSTANT(32.16.6.116)	2	2
6	BASL	ACC TIME CONSTANT	0	0
7	ACTH	ROM HYS	95	95
8	AVAV	AVE SEL AV	3	3
9	BETH	B2COMP	0	0
10	CCRL	R CUTOFF lower	0	0
11	CCRH	R CUTOFF upper	1	1
12	CCOL	G CUTOFF lower when Color Temp. is "Cool" and "Neutral"	0	0
13	CCOH	G CUTOFF upper when Color Temp. is "Cool" and "Neutral"	1	1
14	CCBL	B CUTOFF lower when Color Temp. is "Cool" and "Neutral"	0	0
15	CCBH	B CUTOFF upper when Color Temp. is "Cool" and "Neutral"	1	1
16	ALSP	ACL SPEED	0	0
17	ALAS	ACL ATTACK SPEED	148	148
18	ABLG	ABL GAIN	4	4
19	AKBP	AKB PULSE HEIGHT	10	10
20	AALG	ANALOG ACL GAIN CONTROL	0	0
21	AALS	ANALOG ACL ON/OFF CONTROL	1	1
22	LVDT	LVIN DITHER TEST	14	14
23	YDT	Y DITHER LEVEL	00	00
24	HPFR	APC1 FORCE FREERUN	0	0
25	HPUP	H FREERUN FREQUENCY LP(100Hz)	0	0
26	JSPW	Jump Pulse Width	0	0
27	XPQA	VCXD FREERUN ADJUST	0	0
28	BQST	BQP(for PLL) TIMING	16/08	16/08
29	XPHA	VCXD PHASE ADJUST	10	10
30	HPMP	APC2 TIME CONSTANT	3	3
31	RPLU	REF PLL TIME CONSTANT	3	3
32	RPLB	REF PLL TIME CONSTANT	1	1
33	XPQB	VCXD Fo ADJUST	0	0
34	RPLS	REF VCO FB LOOP SELECT	0	0
35	SSM	SyncSapattaking CONTROL	0	0
36	VSAQ	V-SAG prevent ON	0	0
37	APC2	APC2 GAIN CONTROL	0	0
38	XPLU	ACP TIME CONSTANT	01	01
39	AAPC	APC TIME CONSTANT SW SLOW	00	00
40	GDWR	V_LOCK SW	1	1
41	MRDL	BQP SEL	1	1
42	HRPP	FRAMP/RAMP H OUT CONTROL RANGE	02	02
43	DSCK	DS DAC CLK SW for only Not YUV(YUV:1*Fsq)	00/00	00/00
44	YPRV	V Pulse Wide	1	1
45	QTH	DITHER THRESHOLD LEVEL CONTROL at IC AUTOD=ON	1	1
46	YOFF	Y OUTPUT MUTE	0	0
47	YSSW	SYNC SLICE LEVEL(V) Wide Window	0	0
48	APZS	APC2 Shing SW	0	0
49	YSL2	Digital V_SYNC_LPF(1st)	1	1
50	YSL1	Digital V_SYNC_LPF(1st)	0	0
51	YSHE	V-SHRINK MODE for AV-NoSync	0	0
52	OSCB	CLOCK DIV SEL	00/01	00/01
53	14H	4to5(Slew)CLK POLARITY	01	01
54	14HD	4to5CLK(Slew)CLK DELAY ADJUST	00	00
55	OSI	8to5CLK POLARITY	01	01
56	OSD	8to5CLK DELAY ADJUST	00	00
57	ADCD	ADC CLK DELAY ADJUST	00	00
58	WSTH	WEAK SIGNAL VTH	00	00
59	WSVA	WEAK SIGNAL VIDEO ATT	00	00
60	WSCA	WEAK SIGNAL CHROMA ATT	00	00
61	VREF	AD REFERENCE SELECT(VZ)	00	00
62	DOCK	AD REFERENCE SELECT(VZ)	12/00	12/00
63	OSDC	OSD COMP	00	00
64	HLM1	HW AKB LIM1	04	04
65	HLM2	HW AKB LIM2	12	12
66	HLM3	HW AKB LIM3	21	21
67	HAD1	HW AKB SPEED1	02	02
68	HAD2	HW AKB SPEED2	06	06
69	HAK2	HW AKB MANUAL (MCU)WARD	01	01
70	HASP	HW AKB SPEED	03	03
71	HERL	HW AKB ERROR DET THRESH	10	10
72	HLMC	HW AKB ERROR DET TIME	15	15
73	HPWL	HW AKB POWER ON TRESH	04	04
74	HPWC	HW AKB POWER ON TIME	02	02
75	HPMT	POWER ON HW AKB2 HOLD TIMER(@100msec) [0 : No Hold]	20	20
76	SPMT	AKB POWER ON MUTE EXIT TIMER(@100msec)	120	120
77	Y18M	YUV 18M	01	01
78	PCLP	Packetai Clamp	00	00

Device "AP1"				
Item#	OSD	DETAIL	Initial Data (DEC) 29FA	Initial Data (DEC) 21FA
1	VCOF	VOLUME OFFSET for RF	246	243
2	RFLV	RF audio offset	237	234
3	AEOF	Effect off offset	9	9
4	SOCF	Stadium mode offset	9	9
5	BBOL	Surround Off-BBE Low	3	3
6	BBOH	Surround Off-BBE High	2	2
7	BBGL	WOW Game BBE Low	5	5
8	BBGH	WOW Game BBE High	3	3
9	BBSL	Stadium BBE High	1	1
10	BBSH	Stadium BBE Low	5	5
Device "AMOD" for "STD"				
Item#	OSD	DETAIL	Initial Data (DEC)	Initial Data (DEC)
1	64H	Equalizer band 64 Hz (Standard)	10	10
2	160H	Equalizer band 160 Hz (Standard)	10	10
3	400H	Equalizer band 400 Hz (Standard)	10	10
4	1KH	Equalizer band 1kHz (Standard)	10	10
5	25K	Equalizer band 2.5kHz (Standard)	10	10
6	63K	Equalizer band 6.3kHz (Standard)	10	10
7	16K	Equalizer band 16kHz (Standard)	10	10
Device "AMOD" for "GAME"				
Item#	OSD	DETAIL	Initial Data (DEC)	Initial Data (DEC)
1	64H	Equalizer band 64 Hz (Game)	15	15
2	160H	Equalizer band 160 Hz (Game)	13	13
3	400H	Equalizer band 400 Hz (Game)	12	12
4	1KH	Equalizer band 1kHz (Game)	10	10
5	25K	Equalizer band 2.5kHz (Game)	13	13
6	63K	Equalizer band 6.3kHz (Game)	15	15
7	16K	Equalizer band 16kHz (Game)	13	13
Device "AMOD" for "DYNAMIC"				
Item#	OSD	DETAIL	Initial Data (DEC)	Initial Data (DEC)
1	64H	Equalizer band 64 Hz (Dynamic)	15	15
2	160H	Equalizer band 160 Hz (Dynamic)	12	12
3	400H	Equalizer band 400 Hz (Dynamic)	10	10
4	1KH	Equalizer band 1kHz (Dynamic)	9	9
5	25K	Equalizer band 2.5kHz (Dynamic)	12	12
6	63K	Equalizer band 6.3kHz (Dynamic)	16	16
7	16K	Equalizer band 16kHz (Dynamic)	17	17
Device "AMOD" for "SPEECH"				
Item#	OSD	DETAIL	Initial Data (DEC)	Initial Data (DEC)
1	64H	Equalizer band 64 Hz (Speech)	10	10
2	160H	Equalizer band 160 Hz (Speech)	10	10
3	400H	Equalizer band 400 Hz (Speech)	12	12
4	1KH	Equalizer band 1kHz (Speech)	13	13
5	25K	Equalizer band 2.5kHz (Speech)	14	14
6	63K	Equalizer band 6.3kHz (Speech)	13	13
7	16K	Equalizer band 16kHz (Speech)	11	11

Device "DSP"			Initial Data (DEC)29FA	Initial Data (DEC)21FA
Item#	OSD	DETAIL		
1	MUSM	DSP [30h] [238C]<15 13>	06	06
2	CWDT	DSP [30h] [238D]<2 0>	03	03
3	DIMC	DSP [30h] [238E]<2 0>	03	03
4	CSET	DSP [30h] [238F]<1 0>	00	00
5	BMF	DSP [30h] [2316]<22 22>	01	01
6	BMR	DSP [30h] [2310]<22 22>	01	01
7	XQVF	DSP device coefficient data from 80Hz to 200Hz	05	05
8	MDLY	DSP Delay for Effect Dolby Pro Logic Movie	05	05
9	GDLY	DSP Delay for Effect Dolby Pro Logic Matrix/Music	05	05
Device "AP2"			Initial Data (DEC)	Initial Data (DEC)
Item#	OSD	DETAIL		
1	SRAL	Sub Balance	4	4
2	SBAS	Sub-Bass	0	0
3	STRE	Sub-Treble	0	0
4	SRL	Surround Level	0	0
5	SBOL	Surround CH-BBE Low	2	2
6	SBOH	Surround CH-BBE High	0	0
7	SBSL	Simulated BBE Low	0	0
8	SBSH	Simulated BBE High	0	0
9	SBCL	WOW BBE Low	5	5
10	SBOH	WOW BBE High	3	3
11	SRTL	SRS BBE Low	4	4
12	SRTH	SRS BBE High	1	1
13	VFXL	Audio Out Fix Level	243	243
14	AGL	Automatic Gain Control Level	2	2
15	VCOF		5	5
Device "Microprocessor"			Initial Data (DEC)	Initial Data (DEC)
Item#	OSD	DETAIL		
1	DISP	OSD horizontal position	88	88
2	CCHP	CCD horizontal position	110	110
3	HRLW	Low limit of H-pulse counting window (RF)	16	16
4	HRHG	High limit of H-pulse counting window (RF)	64	64
5	HSDT	H-pulse Detection(S-Video)	08	08
6	STPI	Gradual CONTRAST Increase Starting level	40	40
7	RAPI	Gradual CONTRAST Increase Vsync counter	10	10
8	ZD60	Zero Cross Relay Delay for AC 60Hz	60	60
9	ZD50	Zero Cross Relay Delay for AC 50Hz	40	40
9	ABLT	ABL protection counter	03	03
10	OSLR	R OSD level	27	27
11	OSLG	G OSD level	27	27
12	OSLB	B OSD level	27	27

4-5. ID MAP TABLE

Note: The Device name for ID Map group is "Feature"

Device "Feature "			Initial Data (DEC) 29FA540 / 29FA340	Initial Data (DEC) 21FA540 / 21FA340
Item#		DETAIL		
1	ID0	Language related	115	115
2	ID1	Video related	15	15
3	ID2	Audio related	7	7
4	ID3	Miscellaneous	128	128
5	ID4	Miscellaneous	168	40
6	ID5	Miscellaneous	29 / 16	15 / 00
7	ID6	Miscellaneous	32	15
8	ID7	Miscellaneous	97	97

4-6. WHITE BALANCE ADJUSTMENTS

1. Input an entire white signal with burst.
2. Access Service Adjustment Mode.
3. Set the PICTURE and BRIGHTNESS to minimum.
4. Adjust with SBRT if necessary.
5. Press **[2]** or **[5]** to select the VP1 device.
6. Press **[1]** or **[4]** to display the GCUT OSD item.
7. Press **[3]** or **[6]** to adjust for the best white balance.
8. Press **[1]** or **[4]** to display the BCUT OSD item.
9. Press **[3]** or **[6]** to adjust for the best white balance.
10. Set the PICTURE and BRIGHTNESS to maximum.
11. Press **[1]** or **[4]** to display the GDRV OSD item.
12. Press **[3]** or **[6]** to adjust for the best white balance.
13. Press **[1]** or **[4]** to display the BDRV OSD item.
14. Press **[3]** or **[6]** to adjust for the best white balance.
15. Press **[MUTING]** then **[ENTER]** to save into the memory.

4-7. A BOARD ADJUSTMENTS

H. Frequency (Free Run) Check

1. Input a TV mode (RF) with no signal.
2. Connect a frequency counter to base of Q501 (TP-25 H. DRIVE) on the A Board.
3. Check H. Frequency for 15735 ± 200 Hz.

V. Frequency (Free Run) Check

1. Select video 1 with no signal input.
2. Set the conditions for a standard setting.
3. Connect the frequency counter to TP-27 (V OUT) or CN501 pin ⑥ (V DY+) and ground on the A Board.
4. Check that V. Frequency shows 60 ± 4 Hz.

Drive (SCON)

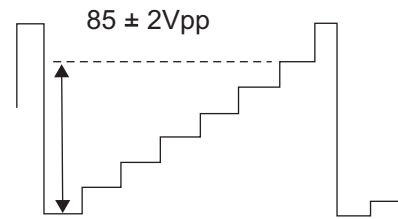
1. Input a color-bar signal and set the level to 75%.
2. Set in Pro mode + PICTURE MAX.
3. Access Service Adjustment Mode.
4. Press **[2]** or **[5]** to select the VP1 device.
5. Press **[1]** or **[4]** to display the GON OSD item.
6. Press **[3]** or **[6]** to adjust to 0.
7. Press **[1]** or **[4]** to display the BON OSD item.
8. Press **[3]** or **[6]** to adjust to 0.

Note: Leave RON set to "1".

R ON:	ON	(1)
G ON:	OFF	(0)
B ON:	OFF	(0)

9. Connect an oscilloscope probe to C Board, CN705 pin3 (KR).
10. Press **[1]** or **[4]** to display the SCON OSD item.

11. Press **[3]** or **[6]** to adjust the value of SCON to $85 \pm 2V_{pp}$.



12. Repeat steps 5 thru 8 to reset GON and BON values to "1".

R ON:	ON	(1)
G ON:	ON	(1)
B ON:	ON	(1)

13. Press **[MUTING]** then **[ENTER]** to write into memory.

Display Position Adjustment (DISP)

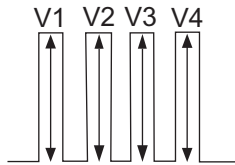
1. Input a color-bar signal.
2. Access Service Adjustment Mode.
3. Press **[2]** or **[5]** to select the Microprocessor device.
4. Press **[1]** or **[4]** to display the DISP OSD item.
5. Press **[3]** or **[6]** to adjust characters to the center.
6. Press **[MUTING]** then **[ENTER]** to write into memory.
7. Check to see if the text is displayed on the screen.

Sub Bright Adjustment (SBRT)

1. Input a monoscope signal.
2. Access Service Adjustment Mode.
3. Set the PICTURE and BRIGHTNESS to minimum.
4. Press **[2]** or **[5]** to select the VP1 device.
5. Press **[1]** or **[4]** to display the SBRT OSD item.
6. Press **[3]** or **[6]** to obtain a faintly visible 20 IRE mark, after that increase +3 steps.
7. Press **[MUTING]** then **[ENTER]** to write into memory.

Sub Hue, Sub Color Adjustment (SHUE, SCOL)

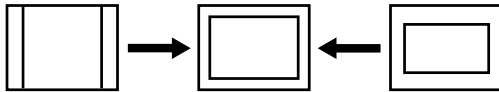
1. Input color-bar signal at 75%.
2. Access Service Adjustment Mode.
3. Set (PIC) to Max and (COL) to 50%.
4. Connect an oscilloscope probe to C Board, CN705 pin ④ (Blue Out).
5. Press **2** or **5** to select the VP1 device.
6. Press **1** or **4** to display the SHUE or SCOL OSD item.
7. While showing the SHUE OSD item, adjust the waveform by pressing **3** or **6** until the second and third bars show the same level ($V2 = V3 < 0.15V_{p-p}$). Set Sub Hue -2 Step.
8. While showing the SCOL OSD item, adjust the waveform by pressing **3** or **6** until the first and fourth bars show the same level ($V1 = V4 < 0.15V_{p-p}$). Set Sub Col + 2 Step.



9. Press **MUTING** then **ENTER** to write into memory.

V. Size Adjustment (VSIZ)

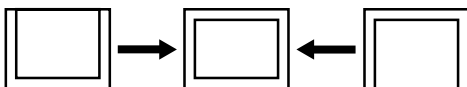
1. Input a crosshatch signal.
2. Access Service Adjustment Mode.
3. Press **2** or **5** to select the DEF device.
4. Press **1** or **4** to display the VSIZ OSD item.
5. Adjust value of VSIZ by pressing **3** or **6** for the best vertical size.
6. Press **MUTING** then **ENTER** to write into memory.



V. Center Adjustment (VPOS)

Perform this adjustment after performing H. Frequency (Free Run) Check.

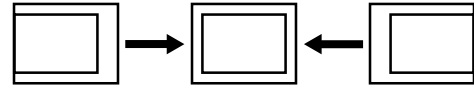
1. Input a crosshatch signal.
2. Access Service Adjustment Mode.
3. Press **2** or **5** to select the DEF device.
4. Press **1** or **4** to display the VPOS OSD item.
5. Adjust value of VPOS by pressing **3** or **6** for the best vertical center.
6. Press **MUTING** then **ENTER** to write into memory.



H. Center Adjustment (HPOS)

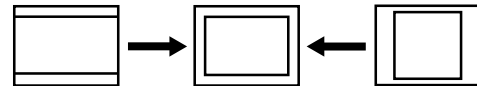
Perform this adjustment after performing H. Frequency (Free Run) Check.

1. Input a crosshatch signal.
2. Access Service Adjustment Mode.
3. Press **2** or **5** to select the DEF device.
4. Press **1** or **4** to display the HPOS OSD item.
5. Adjust the value of HPOS by pressing **3** or **6** for the best horizontal center.
6. Press **MUTING** then **ENTER** to write into memory.



H. Size Adjustment (HSIZ)

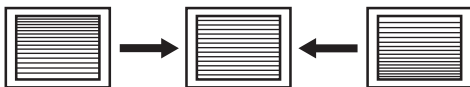
1. Input a monoscope signal.
2. Access Service Adjustment Mode.
3. Press **2** or **5** to select the DEF device.
4. Press **1** or **4** to display the HSIZ OSD item.
5. Adjust value of HSIZ by pressing **3** or **6** for the best horizontal size.
6. Press **MUTING** then **ENTER** to write into memory.



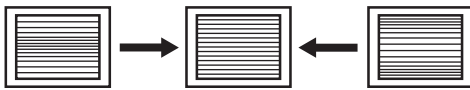
V. Linearity (VLIN), V. Correction (SCOR), PIN Amp (PAMP), and Trapezoid (TRAP) Adjustments

1. Input a crosshatch signal.
2. Access Service Adjustment Mode.
3. Press **2** or **5** to select the DEF device.
4. Press **1** or **4** to display the VLIN OSD item.
5. Adjust the value of VLIN by pressing **3** or **6** for the best horizontal size.
6. Repeat steps 4 and 5 for SCOR, PAMP, and TRAP.
7. Press **MUTING** then **ENTER** to write into memory.

V LINEARITY (VLIN)



V CORRECTION (SCOR)



PIN AMP (PAMP)



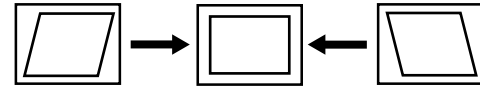
TRAPEZOID (TRAP)



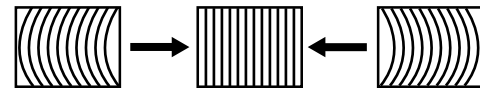
V. Angle (VANG), V. Bow (VBOW), Upper PIN (UPIN) and Low PIN (LPIN) Adjustments

1. Input a crosshatch signal.
2. Access Service Adjustment Mode.
3. Press **2** or **5** to select the DEF device.
4. Press **1** or **4** to display the VANG OSD item.
5. Adjust the value of VANG by pressing **3** or **6** for the best picture.
6. Repeat steps 4 and 5 for VBOW, UPIN, and LPIN.
7. Press **MUTING** then **ENTER** to write into memory.

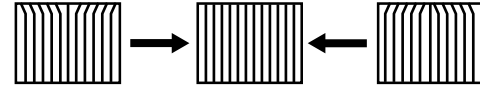
V ANGLE (VANG)



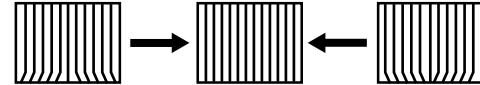
V BOW (VBOW)



UPPER PIN (UPIN)

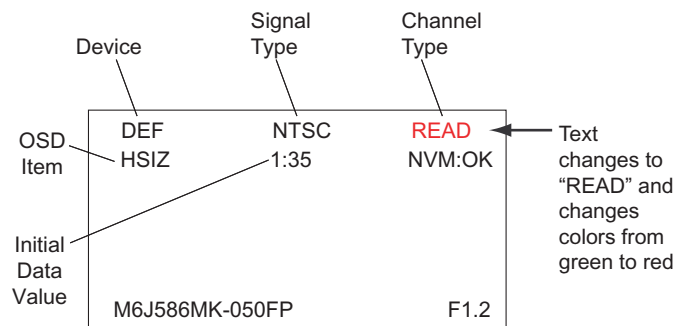


LOW PIN (LPIN)



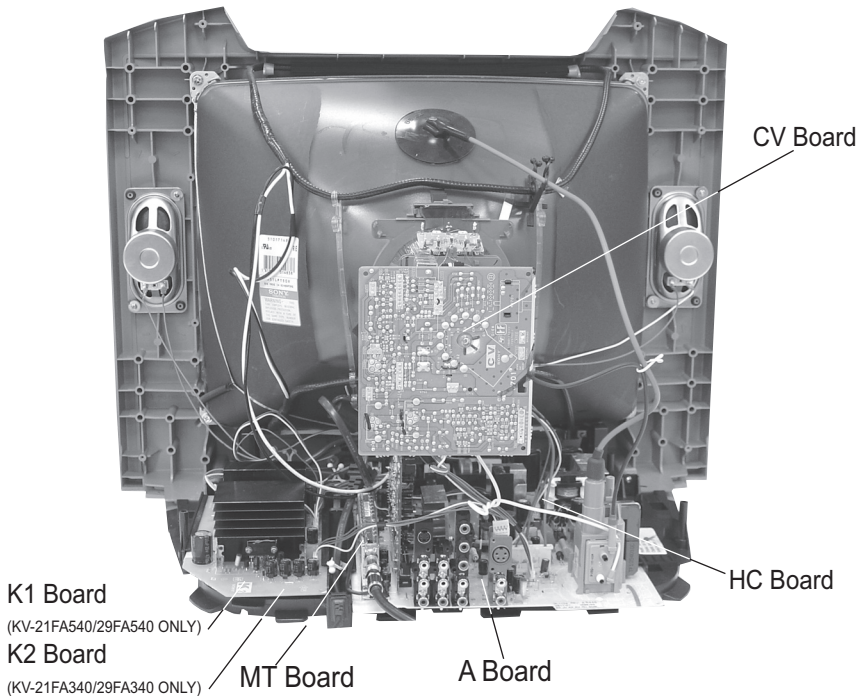
Reading Adjustments to Memory

1. After completing all adjustments, **0** then **ENTER** to read into memory.



SECTION 5: DIAGRAMS

5-1. CIRCUIT BOARDS LOCATION



The components identified by shading and symbol are critical for safety. Replace only with part number specified.

The symbol indicates a fast operating fuse and is displayed on the component side of the board. Replace only with fuse of the same rating as marked.

All voltages are in V.
S : Measurement impossibility.
 : B-line.
(Actual measured value may be different).
 : signal path. (RF)
Circled numbers are waveform references.

The components identified by in this basic schematic diagram have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be necessary, replace only with the value originally used.

When replacing components identified by , make the necessary adjustments as indicated. If the results do not meet the specified value, change the component identified by and repeat the adjustment until the specified value is achieved.

5-2. PRINTED WIRING BOARD AND SCHEMATIC DIAGRAM INFORMATION

All capacitors are in μF unless otherwise noted. pF : μF 50VV or less are not indicated except for electrolytics and tantalums.
All electrolytics are in 50V unless otherwise specified.
All resistors are in ohms. k=1000, M=1000k
Indication of resistance, which does not have one for rating electrical power, is as follows: Pitch : 5mm Rating electrical power :
 $\frac{1}{4}$ W in resistance, $\frac{1}{10}$ W and $\frac{1}{8}$ W in chip resistance.
 : nonflammable resistor.
 : fusible resistor.
 : internal component.
 : panel designation and adjustment for repair.
 : earth ground
 : earth-chassis
All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
Readings are taken with a color-bar signal input.
Readings are taken with a 10M digital multimeter.
Voltages are DC with respect to ground unless otherwise noted.
Voltage variations may be noted due to normal production tolerances.

(Refer to Section 3: Safety Related Adjustments on Page 35.)

When replacing the parts listed in the table below, it is important to perform the related adjustments.

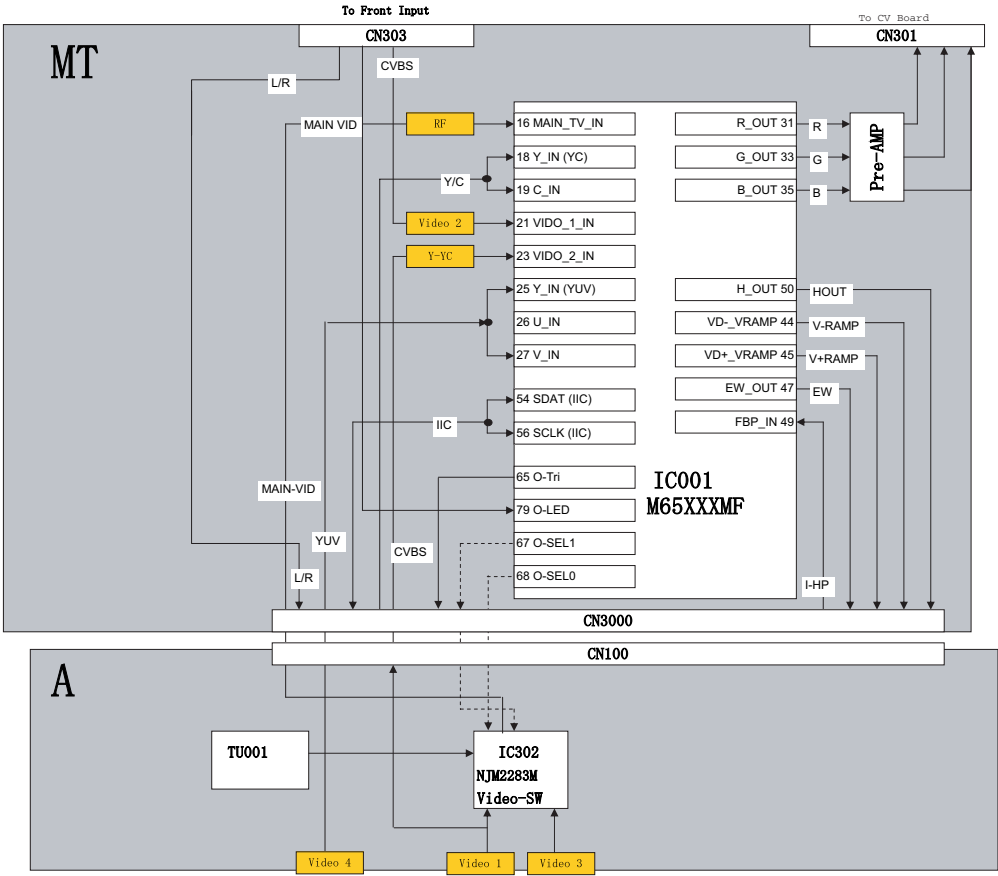
Part Replaced ()	Adjustment ()
C531, C532, D519, D520, D521, IC501, IC600, PH602, R529, R530, R531, R532, R533, R550, T503 (FBT), T504 (DFT)	HV HOLD-DOWN R530, R531

REFERENCE INFORMATION

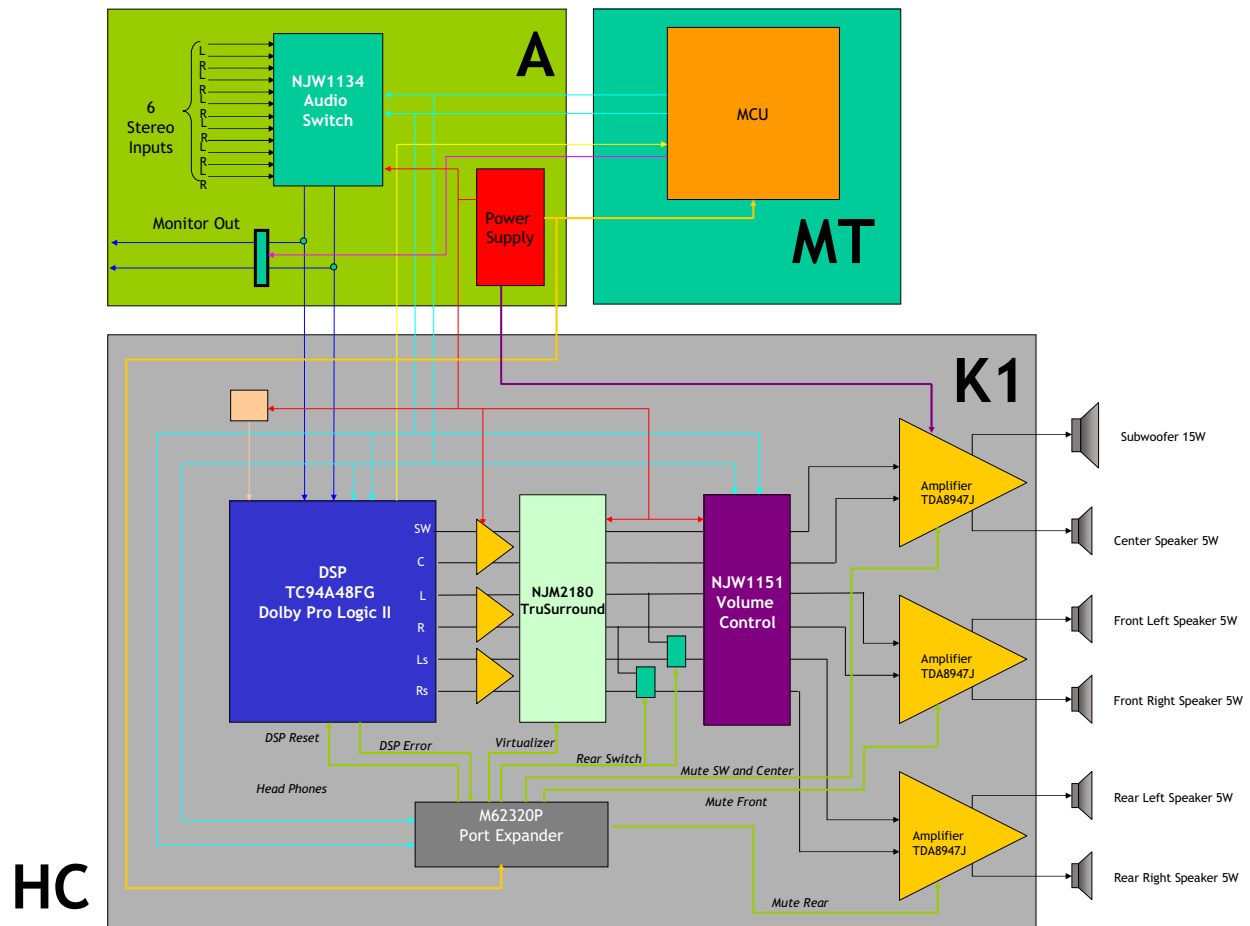
RESISTOR		CAPACITOR	
: RN	METAL FILM	: TA	TANTALUM
: RC	SOLID	: PS	STYROL
: FPRD	NONFLAMMABLE CARBON	: PP	POLYPROPYLENE
: FUSE	NONFLAMMABLE FUSIBLE	: PT	MYLAR
: RW	NONFLAMMABLE WIREWOUND	: MPS	METALIZED POLYESTER
: RS	NONFLAMMABLE METAL OXIDE	: MPP	METALIZED POLYPROPYLENE
: RB	NONFLAMMABLE CEMENT	: ALB	BIPOLAR
:	ADJUSTMENT RESISTOR	: ALT	HIGH TEMPERATURE
		: ALR	HIGH RIPPLE
COIL			
: LF-8L	MICRO INDUCTOR		

5-3. BLOCK DIAGRAMS AND SCHEMATICS

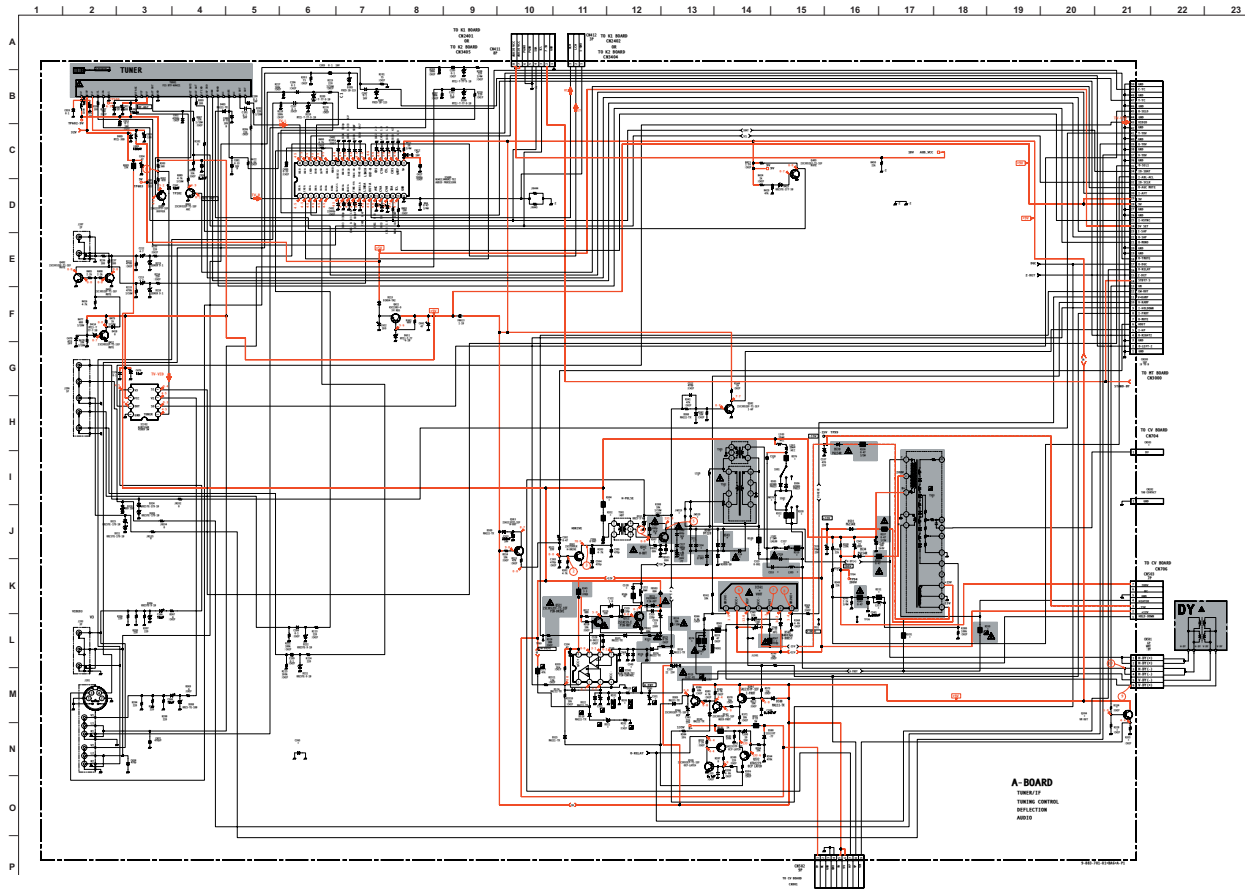
SIGNAL FLOW BLOCK DIAGRAM



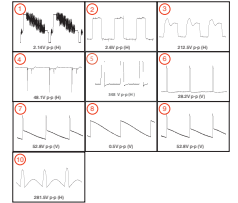
AUDIO BLOCK DIAGRAM



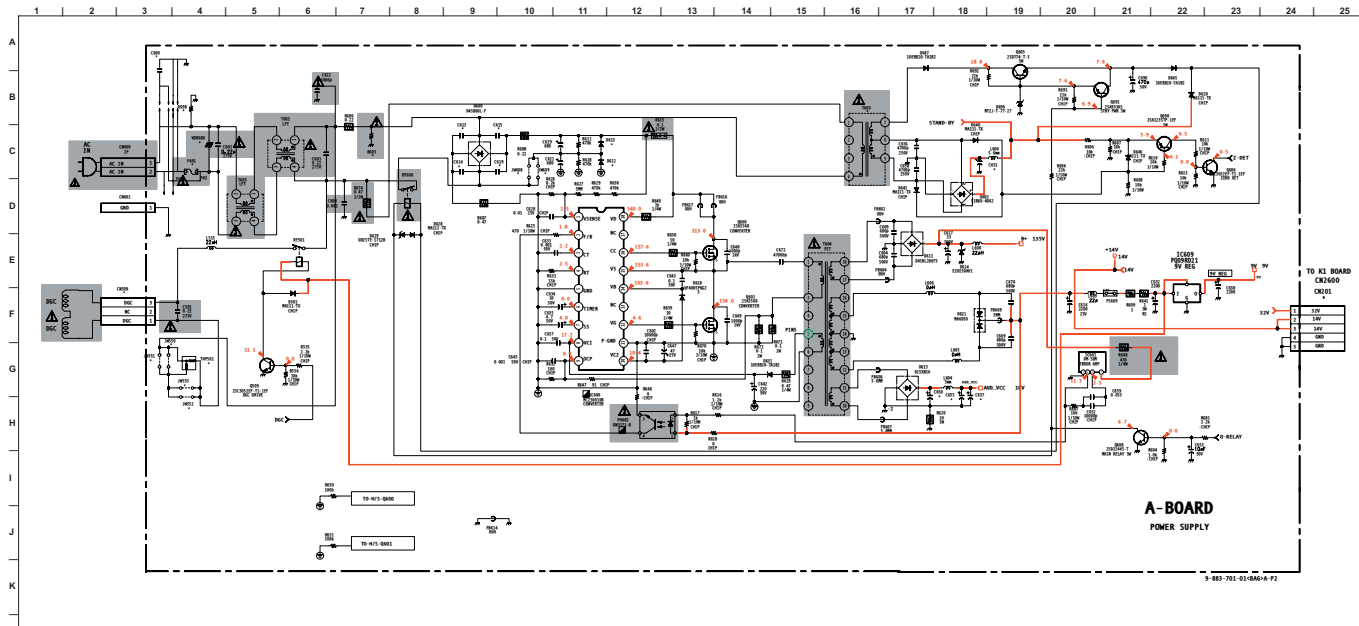
A BOARD SCHEMATIC DIAGRAM (1 OF 2)



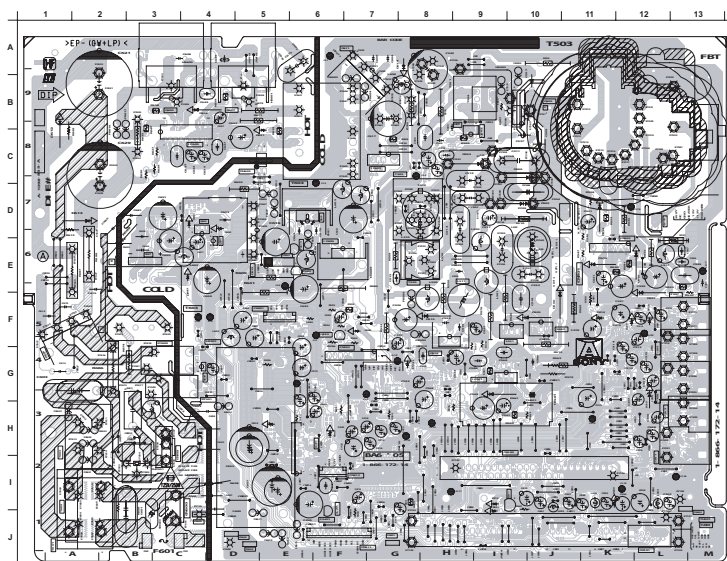
A BOARD WAVEFORMS



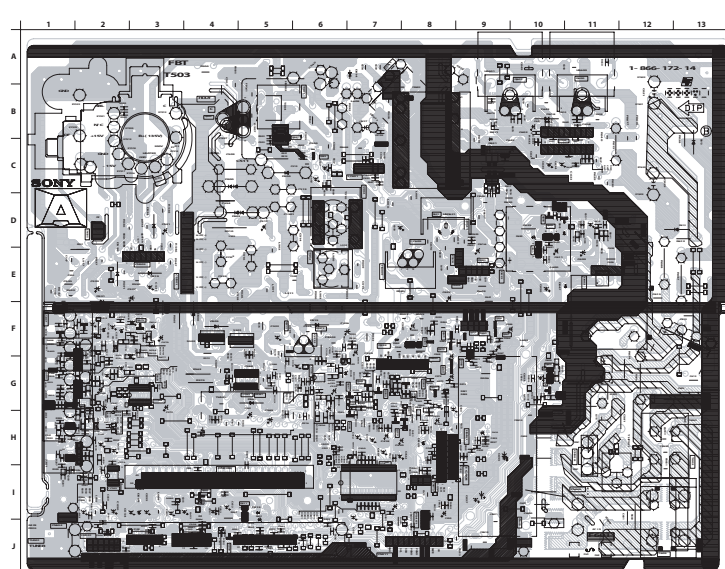
A BOARD SCHEMATIC DIAGRAM (2 OF 2)



A [TUNING, TUNING CONTROL, DEFLECTION, AUDIO, POWER SUPPLY]
COMPONENT SIDE



A [TUNING, TUNING CONTROL, DEFLECTION, AUDIO, POWER SUPPLY]
CONDUCTOR SIDE



**ABOARD LOCATOR LIST
CONDUCTOR SIDE**

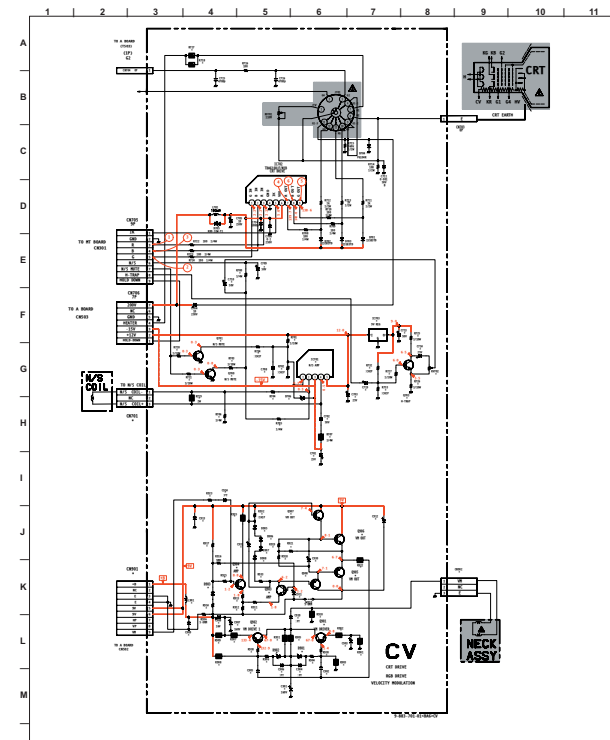
DIODE	DIODE	DIODE	DIODE	IC	TRANSISTOR
D009 H-3	D402 G-2	D522 H-6	D615 E-9	IC302 L-2	Q511 F-5
D205 H-1	D405 J-5	D525 H-6	D616 B-10	IC400 L-7	Q512 F-6
D201 H-1	D414 F-3	D506 H-6	D620 D-11	IC501 G-8	Q530 H-7
D209 H-2	D419 F-2	D530 E-2	D621 G-8	IC503 G-5	Q531 G-8
D210 H-2	D457 F-6	D531 E-2	D628 F-10	IC505 C-10	Q532 F-7
D211 H-2	D500 C-4	D534 D-3	D629 G-10	IC601 C-7	Q561 G-6
D212 G-2	D501 G-10	D535 G-8	D631 C-9	IC606 D-8	Q562 G-7
D213 H-5	D503 D-4	D551 G-8	D640 D-11	TRANSISTOR	Q564 G-6
D218 F-2	D504 C-5	D551 G-5	D641 G-11	Q605 L-4	Q562 G-7
D219 F-2	D505 F-4	D560 F-7	D645 D-10	Q305 J-4	Q553 C-4
D305 L-2	D506 F-4	D585 G-7	D646 D-11	Q304 G-8	Q600 A-11
D306 H-2	D508 G-5	D586 H-5	D647 E-10	Q402 F-2	Q601 A-10
D307 L-2	D509 G-5	D590 G-7	D651 E-6	Q403 F-1	Q565 G-10
D308 H-2	D515 F-6	D600 F-12	D660 D-10	Q405 F-8	Q608 D-10
D309 G-3	D516 G-7	D602 E-11		Q411 F-3	Q568 G-10
D310 G-2	D518 F-7	D611 A-7		Q406 F-9	Q611 L-5
D311 G-2	D519 E-3	D612 B-13		Q501 B-5	Q590 D-10
D324 G-3	D520 G-7	D613 D-13		Q502 B-4	Q691 D-10
D325 G-3	D521 G-7	D614 A-7		Q505 G-10	

KV21FA3021FA3021FA3021FA30

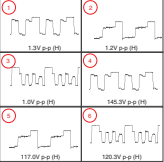
KV21FA3021FA3021FA3021FA30

54

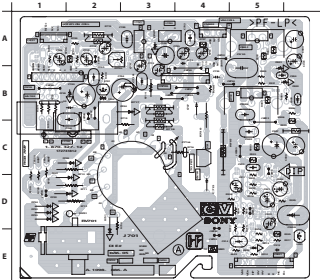
CV BOARD SCHEMATIC DIAGRAM



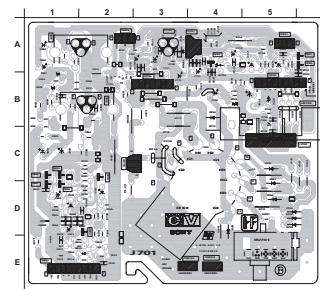
CV BOARD WAVEFORMS



CV [CRT DRIVE, RGB DRIVE, VELOCITY MODULATION] COMPONENT SIDE

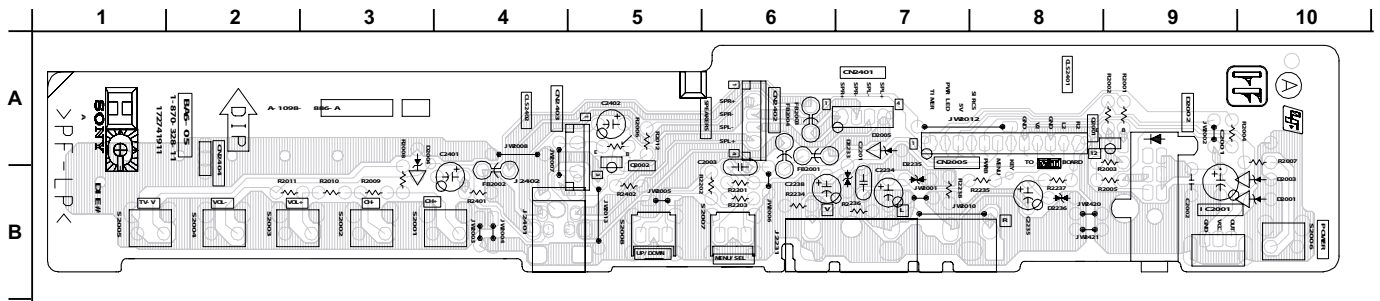


CV [CRT DRIVE, RGB DRIVE, VELOCITY MODULATION] CONDUCTOR SIDE

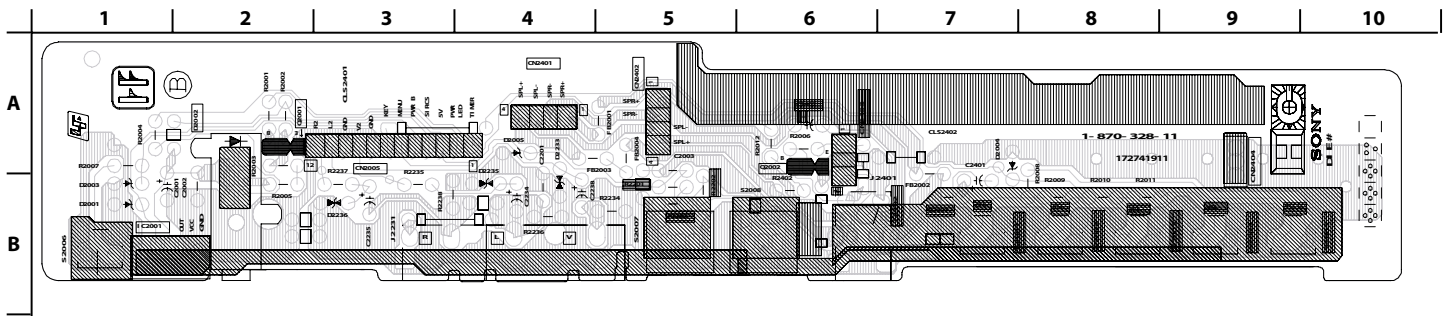




HC [FRONT A/V, MENU KEY, IR DETECTOR]
COMPONENT SIDE

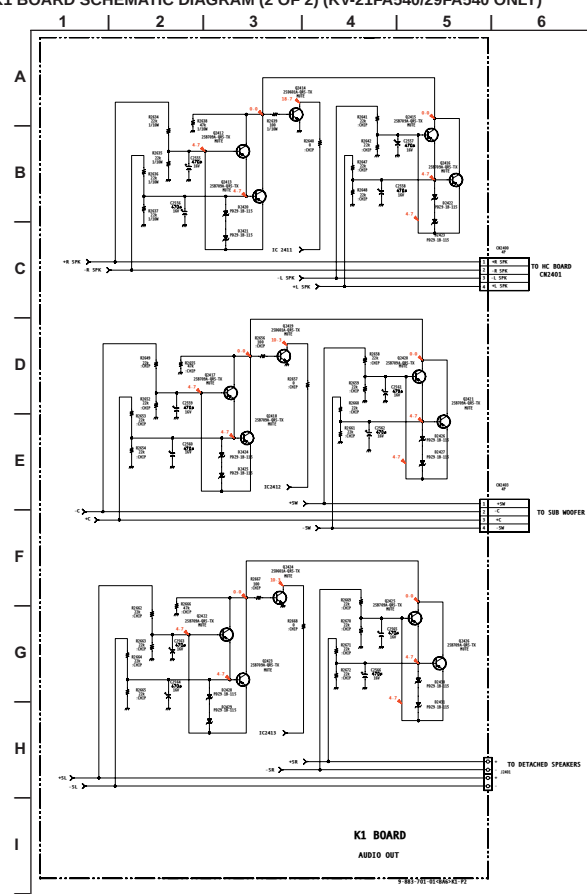


HC [FRONT A/V, MENU KEY, IR DETECTOR]
CONDUCTOR SIDE

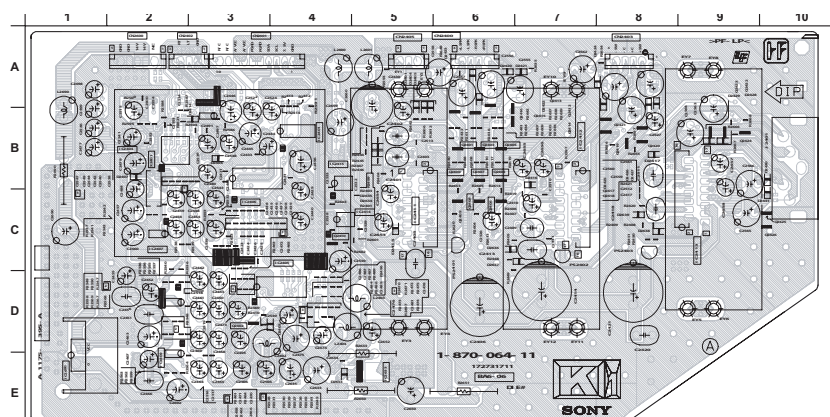
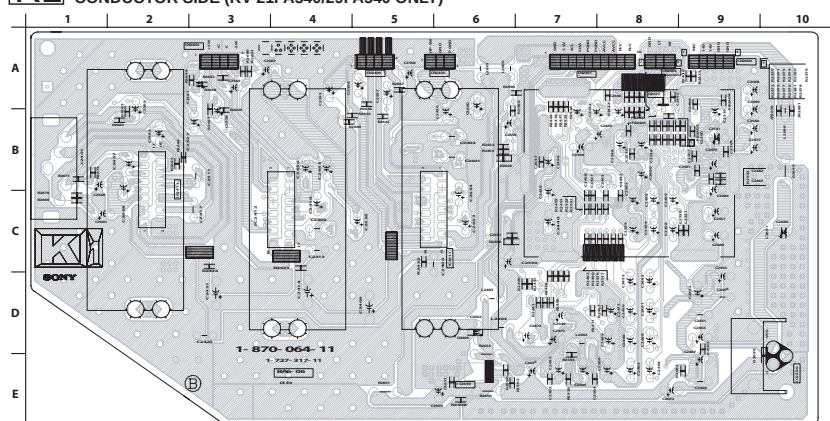




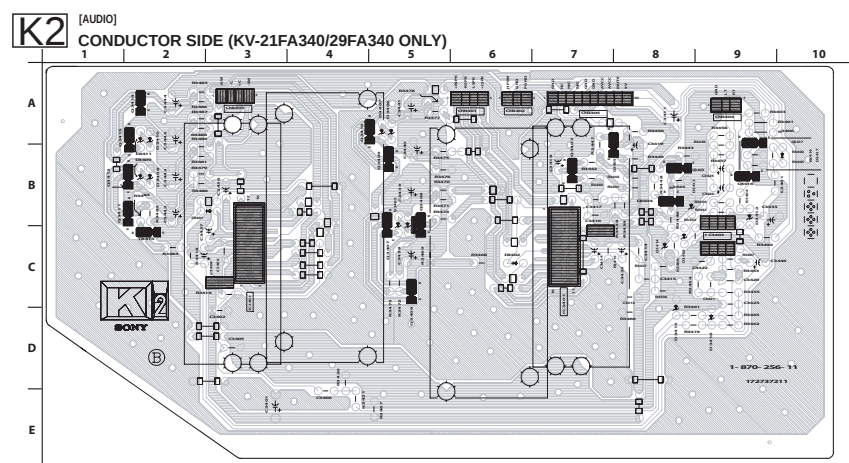
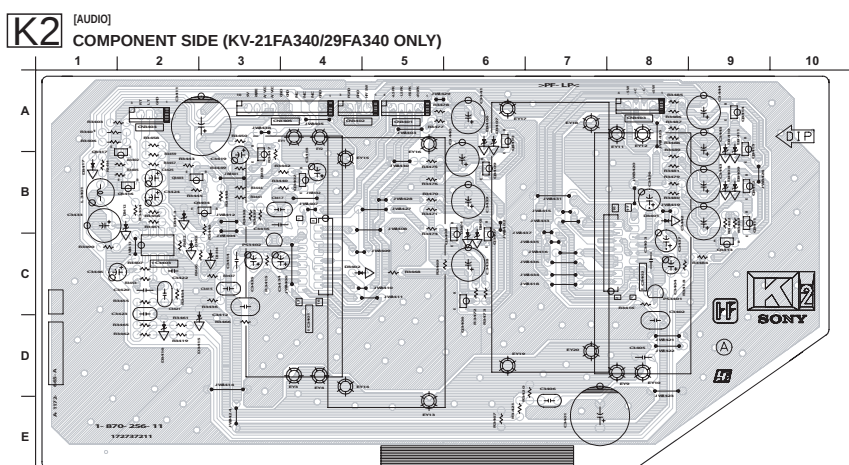
K1 BOARD SCHEMATIC DIAGRAM (2 OF 2) (KV-21FA540/29FA540 ONLY)



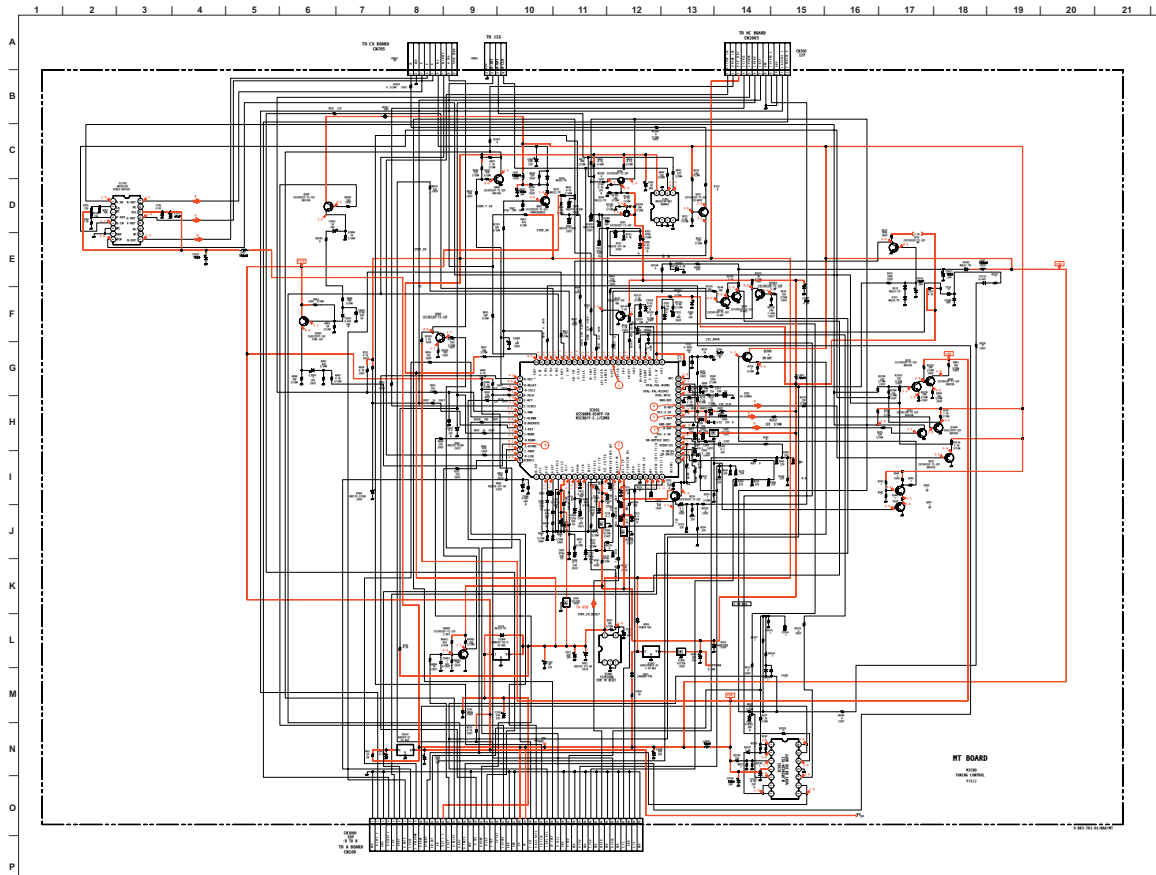
KV-21FA340/21FA540/29FA340/29FA540

K1 [AUDIO, AUDIO OUT]
 COMPONENT SIDE (KV-21FA540/29FA540 ONLY)

K1 [AUDIO, AUDIO OUT]
 CONDUCTOR SIDE (KV-21FA540/29FA540 ONLY)


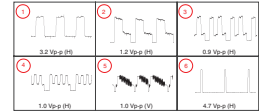




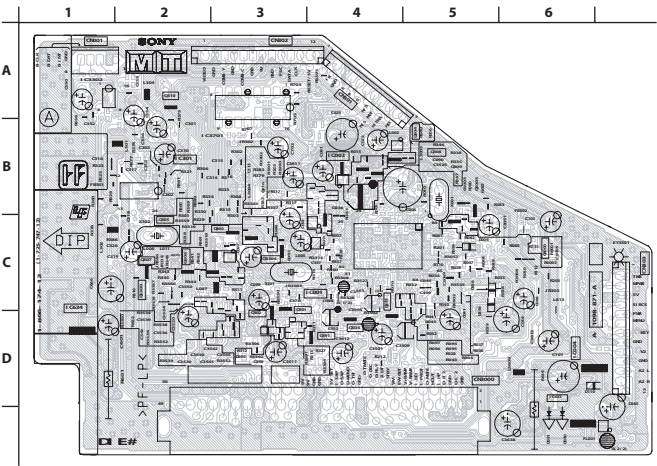
MT BOARD SCHEMATIC DIAGRAM



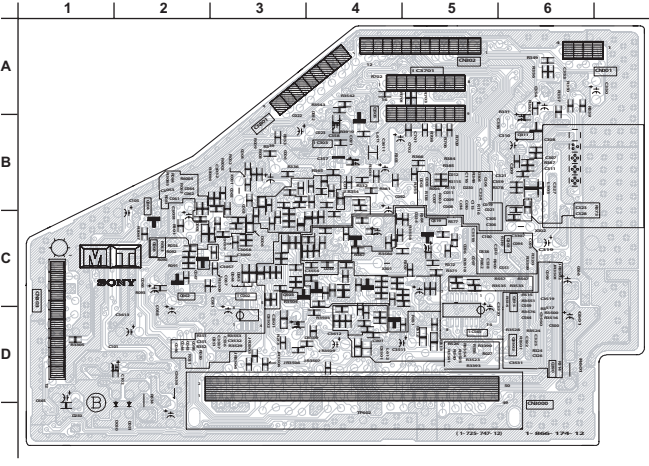
MT BOARD WAVEFORMS



MT [MICRO, TUNING CONTROL, Y/C/I/J]
COMPONENT SIDE



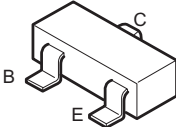
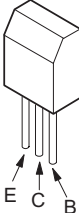
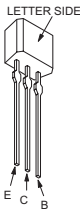
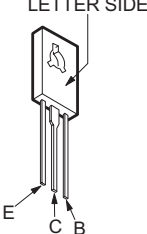
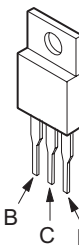
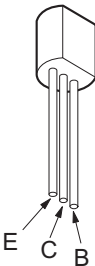
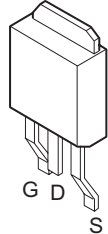
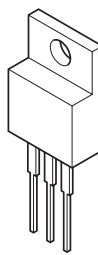
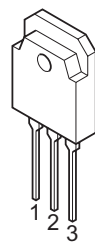
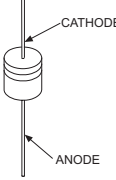
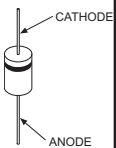
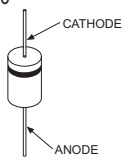
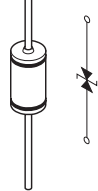
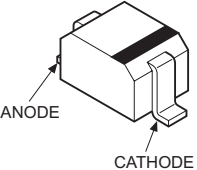
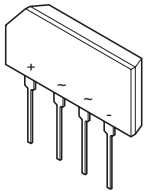
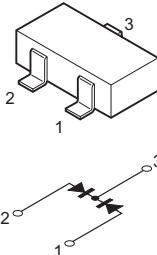
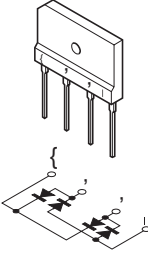
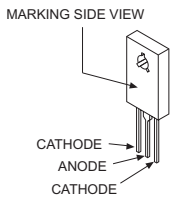
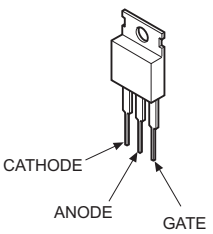
MT [MICRO, TUNING CONTROL, Y/C/I/J]
CONDUCTOR SIDE



MT BOARD LOCATOR LIST

DIODE		IC		TRANSISTOR	
COMP	COND	COMP	COND	COMP	COND
D002	B-5	IC001	C-4	Q002	C-2
D004	C-5	IC002	D-3	Q004	C-2
D005	C-2	IC003	B-4	Q008	C-2
D006	C-3	IC004	D-6	Q301	C-3
D044	C-3	IC685	D-5	Q303	C-6
D045	C-3	IC633	D-6	Q305	C-2
D050	E-1	IC634	C-1	Q306	C-2
D051	E-2	IC701	A-5	Q307	C-2
D052	B-4			Q316	B-3
D110	D-6			Q390	D-6
D250	E-1			Q391	D-4
D304	B-5			Q503	C-3
D351	D-3			Q504	D-4
D390	D-3			Q505	B-4
D512	D-5			Q515	D-6
D513	D-5			Q519	C-5
D558	C-5			Q533	D-4
D559	C-5			Q860	C-3
D3501	D-4			Q3005	B-5
D3502	D-3			Q3300	C-2
D3509	D-4			Q3304	C-3
				Q3502	D-6
				Q6000	C-6

5-4. SEMICONDUCTORS

2SB709A-QRS-TX 2SD601A-QRS-TX	2SB734-T-34 2SC3209LK-TP	2SA1309A-QRSTA 2SC3311A-QRSTA 2SD2144S-TP-UVW	2SC3840K	2SA1837
				
2SA10910-TPE2	IRF614	2SK2663	2SC4793	2SD2578-YB
				
ERA38-06TP1 ERA82-004TP5 1SS133T-77 D1NS0R-TA MTZJ-T-77-12C MTZJ-T-77-15B MTZJ-T-77-33B MTZJ-T-77-39	RU-1P ERC06-15S EGP20DPKG23 MTZJ-T-77-5.1C MTZJ-T-77-5.6C MTZJ-T-77-7.5A MTZJ-T-77-10B MTZJ-T-77-30D RGP10-GPKG3 RGP02-17PKG23 RGP15PKG23	ERB44-06TP1 1SS83TD GP08DPKG23 RGP10GPKG23 RU4AM-T3	RD9.1EW-T1	MA111-TX UDZ-TE-17.5.1B UDZ-TE-17.91B
				
D2SB60A-F04	DAP202K-T-146	D4SB60L-F		
				
D5LC20U	TF541M			
				

SECTION 6: EXPLODED VIEWS

Components not identified by a part number or description are not stocked because they are seldom required for routine service.

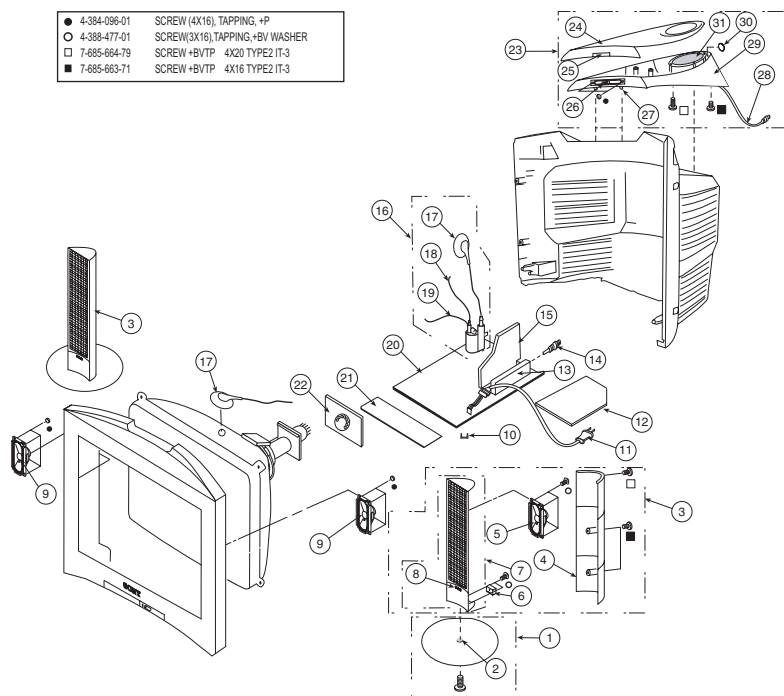
The component parts of an assembly are indicated by the reference numbers in the far right column of the parts list and within the dotted lines of the diagram.

* Items marked with an asterisk are not stocked since they are seldom required for routine service. Expect some delay when ordering these components.

NOTE: The components identified by shading and Δ mark are critical for safety. Replace only with part number specified.

6-1. CHASSIS

- 4-384-096-01 SCREW (4X16), TAPPING, +P
- 4-388-477-01 SCREW (3X16), TAPPING, +BV WASHER
- 7-685-664-79 SCREW +BVTP 4X20 TYPE2 IT-3
- 7-685-663-71 SCREW +BVTP 4X16 TYPE2 IT-3



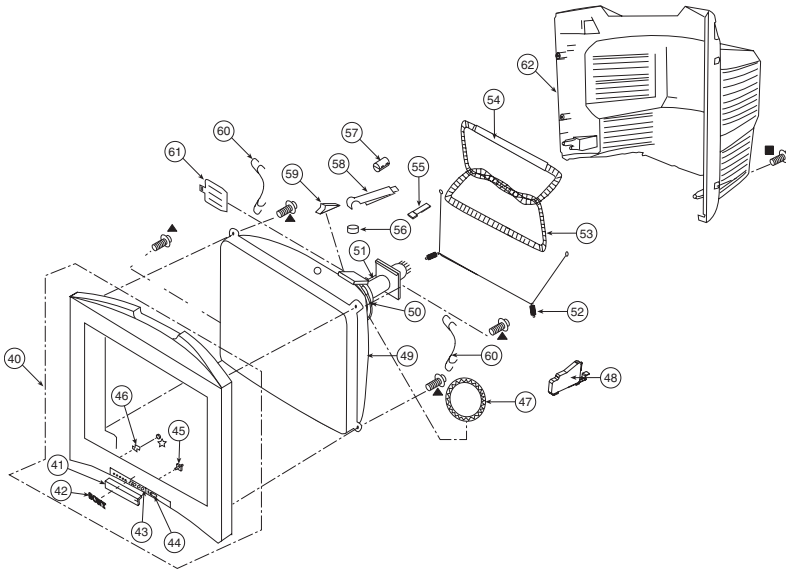
KV-21FA340/21FA540/29FA340/29FA540

REF. NO.	PART NO.	DESCRIPTION	[ASSEMBLY INCLUDES]	REF. NO.	PART NO.	DESCRIPTION	[ASSEMBLY INCLUDES]
1	A-1183-167-A	BASE ASSY (KV-21FA540/29FA540 ONLY)	[2]	Δ 17	1-251-642-52	CAP ASSY, HIGH-VOLTAGE (KV-21FA340/21FA540 ONLY)	
* 2	3-650-537-00	WASHER (KV-21FA540/29FA540 ONLY)		Δ 17	1-251-715-22	CAP ASSY, HIGH-VOLTAGE (KV-29FA340/29FA540 ONLY)	
3	A-1175-426-A	EXTERNAL SPEAKER ASSY (21) (KV-21FA540 ONLY)	[4-7]	Δ 18	1-900-800-65	CONNECTOR ASSY, FOCUS LEAD (KV-21FA340/21FA540 ONLY)	
3	A-1175-425-A	EXTERNAL SPEAKER ASSY (29) (KV-29FA540 ONLY)	[4-7]	Δ 18	1-900-800-82	WIRE ASSY, FOCUS (KV-29FA340/29FA540 ONLY)	
4	X-2109-465-1	BACK ASSY (21) (KV-21FA540 ONLY)		Δ 19	1-900-803-22	WIRE ASSY, G2 LEAD (KV-21FA340/21FA540 LATIN NORTH ONLY)	
4	X-2109-466-1	BACK ASSY (29) (KV-29FA540 ONLY)		20	A-1175-407-A	A BOARD, COMPLETE	
5	1-825-417-21	LOUDSPEAKER (6X12CM) (KV-21FA340/29FA340 ONLY)				The high-voltage leads associated with the FBT on this A Board are not included and must be ordered separately (SEE 17-19).	
5	1-826-447-11	LOUDSPEAKER (6X12CM) (KV-21FA540/29FA540 ONLY)		20	A-1175-414-A	A BOARD, COMPLETE (KV-29FA340/29FA540 LATIN SOUTH ONLY)	
6	1-780-277-11	TERMINAL BOARD (KV-21FA540/29FA540 ONLY)				The high-voltage leads associated with the FBT on this A Board are not included and must be ordered separately (SEE 17-19).	
7	X-2108-697-1	FRONT ASSY (21) (KV-21FA540 ONLY)	[8]	20	A-1175-392-A	A BOARD, COMPLETE (KV-29FA340/29FA540 LATIN NORTH ONLY)	
7	X-2108-698-1	FRONT ASSY (29) (KV-29FA540 ONLY)	[8]			The high-voltage leads associated with the FBT on this A Board are not included and must be ordered separately (SEE 17-19).	
8	4-046-162-21	EMBLEM (NO.6), SONY (KV-21FA540/29FA540 ONLY)		20	A-1175-401-A	A BOARD, COMPLETE (KV-29FA340/29FA540 LATIN SOUTH ONLY)	
9	1-825-417-21	LOUDSPEAKER (6X12CM) (KV-21FA340/29FA340 ONLY)				The high-voltage leads associated with the FBT on this A Board are not included and must be ordered separately (SEE 17-19).	
9	1-826-447-11	LOUDSPEAKER (6X12CM) (KV-21FA540/29FA540 ONLY)		21	A-1175-409-A	HC (VAR) BOARD, MOUNTED (KV-21FA340/21FA540 ONLY)	
* 10	4-076-951-01	HINGE, PWB		21	A-1178-172-A	HC (VAR) BOARD, MOUNTED (KV-29FA340/29FA540 ONLY)	
Δ 11	1-824-069-11	CORD, AC POWER(WITH CONNECTOR) (LATIN NORTH ONLY)		22	A-1181-165-A	CV (VAR) BOARD, MOUNTED (KV-21FA340/21FA540 ONLY)	
Δ 11	1-757-840-13	CORD, POWER (WITH CONNECTOR) (LATIN SOUTH ONLY)		22	A-1175-394-A	CV (VAR) BOARD, MOUNTED (KV-29FA340/29FA540 ONLY)	
12	A-1172-665-A	K2 BOARD, MOUNTED (KV-21FA340/29FA340 ONLY)		23	A-1175-980-A	SPEAKER ASSY (FA340) (KV-21FA340/29FA540 ONLY)	[24-31]
12	A-1175-395-A	K1 BOARD, MOUNTED (KV-21FA540/29FA540 ONLY)		* 23	A-1175-424-A	SPEAKER ASSY (FA540) (KV-21FA540/29FA540 ONLY)	[24-31]
Δ 13	8-598-593-70	TUNER, FSS BTF-WA421		* 24	2-582-076-11	COVER, TOP (21-29)	
Δ 14	1-766-374-11	PLUG, F-PIN		25	2-582-080-31	EMBLEM, DOLBY (21-29) (KV-21FA340/29FA340 ONLY)	
15	A-1176-830-A	MT (VAR) BOARD, MOUNTED (KV-21FA340/21FA540 ONLY)		25	2-582-080-21	EMBLEM, DOLBY (21-29) (KV-21FA540/29FA540 ONLY)	
15	A-1176-831-A	MT (VAR) BOARD, MOUNTED (KV-29FA340/29FA540 ONLY)		26	1-825-809-11	LOUDSPEAKER (19.2X4.2CM) (KV-21FA340/29FA340 ONLY)	
Δ 16	1-453-316-21	FBT ASSY NX-1748/0X4A4 (KV-21FA340/21FA540 ONLY)	[17-19]	26	1-826-448-11	LOUDSPEAKER (19.2X4.2CM) (KV-21FA540/29FA540 ONLY)	
Δ 16	1-453-310-11	FBT ASSY NX-4521/0X4J4 (KV-29FA340/29FA540 ONLY)	[17-19]	* 27	4-068-528-31	FOOT	
				28	1-830-588-11	CONNECTION CABLE	
				29	2-582-077-31	COVER, BOTTOM (21-29)	
				30	2-582-079-01	CUSHION, DUCT (21-29)	
				31	1-826-446-11	LOUDSPEAKER (13CM)	

NOTE: The components identified by shading and Δ mark are critical for safety.
Replace only with part number specified.

6-2. PICTURE TUBE

- 7-685-663-71 SCREW +BVTP 4X16 TYPE2 IT-3
- ▲ 4-365-808-01 SCREW (S), TAPPING (KV-21FA340/21FA540 ONLY)
- ▲ 4-046-765-12 SCREW, TAPPING T+CROWN WASHER (KV-29FA340/29FA540 ONLY)
- ☆ 7-685-648-79 SCREW +BVTP 3X12 TYPE2 TT(B)



REF. NO.	PART NO.	DESCRIPTION	[ASSEMBLY INCLUDES]	REF. NO.	PART NO.	DESCRIPTION	[ASSEMBLY INCLUDES]
40	X-2108-694-1	BEZNET ASSY (21) (KV-21FA340/21FA540 ONLY)	[41-46]	△ 51	8-453-026-31	NECK ASSEMBLY NA2921-S3 (KV-29FA340/29FA540 ONLY)	
40	X-2108-695-1	BEZNET ASSY (29) (KV-29FA340/29FA540 ONLY)	[41-46]	* 52	4-375-394-01	SPRING, TENSION (KV-21FA340/21FA540 ONLY)	
41	2-582-072-21	DOOR (21-29)		52	4-036-329-01	SPRING (B), TENSION (KV-29FA340/29FA540 ONLY)	
42	4-046-161-21	EMBLEM, SONY NO.8 (KV-21FA340/21FA540 ONLY)		△ 53	1-456-153-11	COIL, DEGAUSSING (KV-21FA340/21FA540 ONLY)	
42	4-046-160-31	EMBLEM, SONY NO.9 (KV-29FA340/29FA540 ONLY)		△ 53	1-419-294-11	COIL, DEGAUSSING (KV-29FA340/29FA540 LATIN SOUTH ONLY)	
43	2-582-073-11	LABEL, CONTROL (21-29) (KV-21FA340/21FA540 ONLY)		△ 53	1-457-236-11	DEGAUSSING COIL (KV-29FA340/29FA540 LATIN NORTH ONLY)	
43	2-582-073-01	LABEL, CONTROL (21-29) (KV-29FA340/29FA540 ONLY)		54	4-103-011-01	TUBE, DGC (C)	
44	4-102-305-31	BUTTON, POWER		55	4-083-414-01	PIECE A(110), CONV CORRECT	
45	4-102-306-12	GUIDE, LED/IR		56	1-452-032-00	MAGNET DISC (KV-21FA340/21FA540 ONLY)	
46	4-083-303-01	SPRING, METAL		56	1-452-885-11	MAGNET, LANDING (KV-29FA340/29FA540 ONLY)	
△ 47	1-452-896-11	COIL, NA ROTATION (RT-200) (KV-29FA340/29FA540 ONLY)		57	1-500-586-11	FILTER, CLAMP (FERRITE CORE) (LATIN SOUTH ONLY)	
48	2-582-360-01	SUPPORT, CRT (21) (KV-21FA340/21FA540 ONLY)		* 58	4-062-970-12	CLIP (29RSN), DGC (KV-29FA340/29FA540 ONLY)	
48	2-582-075-01	SUPPORT, CRT (29) (KV-29FA340/29FA540 ONLY)		59	4-046-600-11	SPACER, DY	
△ 49	8-738-822-05	CRT 21RSN (FOR N.AMERICA) A51LPT00X (KV-21FA340/21FA540 LATIN NORTH ONLY)		* 60	4-080-810-22	BAND, DEGAUSS COIL (KV-21FA340/21FA540 ONLY)	
△ 49	8-738-838-05	CRT 21RSN(SDP)(SOUTH) A51LPT50X (KV-21FA340/21FA540 LATIN SOUTH ONLY)		61	4-081-170-01	PLATE, TLH CORRECTION	
△ 49	8-735-041-05	CRT 29RSN M68LNH010X (KV-29FA340/29FA540 LATIN NORTH ONLY)		62	2-582-069-31	COVER, REAR (21) (KV-21FA340 ONLY)	
△ 49	8-735-083-05	CRT 29RSN(SDP)(SOUTH) M68LNH050X (KV-29FA340/29FA540 LATIN SOUTH ONLY)		62	2-582-069-21	COVER, REAR (21) (KV-21FA540 ONLY)	
△ 50	8-451-505-71	DY Y21RSA-V (KV-21FA340/21FA540 ONLY)		62	2-582-083-31	COVER, REAR (29) (KV-29FA340 ONLY)	
△ 50	8-451-494-81	DY Y29RSA-V3 (KV-29FA340/29FA540 ONLY)		62	2-582-083-21	COVER, REAR (29) (KV-29FA540 ONLY)	

NOTE: The components identified by shading and  mark are critical for safety. Replace only with part number specified.



REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
C414	1-126-960-11	ELECT	1μF	20%	50V	C519	1-102-244-00	CERAMIC	220pF	10%	500V
C415	1-126-960-11	ELECT	1μF	20%	50V	C520	1-164-646-11	CERAMIC	2200pF	10%	500V
C416	1-126-960-11	ELECT	1μF	20%	50V			(KV-21FA340/21FA540 ONLY)			
C417	1-115-416-11	CERAMIC CHIP	0.001μF	5%	25V	C520	1-165-136-11	CERAMIC	3300pF	10%	500V
C418	1-126-963-11	ELECT	4.7μF	20%	50V			(KV-29FA340/29FA540 ONLY)			
C420	1-126-960-11	ELECT	1μF	20%	50V	C522	1-126-960-11	ELECT	1μF	20%	50V
C422	1-126-947-11	ELECT	47μF	20%	35V	C523	1-126-934-11	ELECT	220μF	20%	16V
C431	1-164-315-11	CERAMIC CHIP	470pF	5%	50V	C525	1-102-244-00	CERAMIC	220pF	10%	500V
C432	1-164-315-11	CERAMIC CHIP	470pF	5%	50V	C526	1-107-662-11	ELECT	22μF	20%	350V
		(KV-29FA340/29FA540 ONLY)				 C527	1-162-116-00	CERAMIC	680pF	10%	2KV
C434	1-164-315-11	CERAMIC CHIP	470pF	5%	50V	C528	1-162-966-11	CERAMIC CHIP	0.0022μF	10%	50V
C470	1-126-935-11	ELECT	470μF	20%	16V	C529	1-104-662-91	ELECT	22μF	20%	25V
C476	1-126-964-11	ELECT	10μF	20%	50V	C530	1-164-690-91	CERAMIC	0.0022μF	10%	50V
C502	1-126-959-11	ELECT	0.47μF	20%	50V			(KV-29FA340/29FA540 ONLY)			
C503	1-164-315-11	CERAMIC CHIP	470pF	5%	50V	C531	1-107-635-11	ELECT	4.7μF	20%	160V
C504	1-102-228-00	CERAMIC	470pF	10%	500V			(KV-21FA340/21FA540 ONLY)			
C505	1-102-228-00	CERAMIC	470pF	10%	500V	C531	1-126-965-91	ELECT	22μF	20%	50V
C506	1-106-383-00	MYLAR	0.047μF	10%	200V			(KV-29FA340/29FA540 ONLY)			
 C507	1-162-116-00	CERAMIC	680pF	10%	2KV	C532	1-126-963-11	ELECT	4.7μF	20%	50V
 C509	1-162-116-00	CERAMIC	680pF	10%	2KV			(KV-21FA340/21FA540 ONLY)			
 C510	1-137-150-11	FILM	0.01μF	5%	100V	C532	1-126-965-91	ELECT	22μF	20%	50V
 C511	1-117-642-11	FILM	8200pF	3%	1.2KV			(KV-29FA340/29FA540 ONLY)			
		(KV-21FA340/21FA540 ONLY)				C534	1-126-967-11	ELECT	47μF	20%	50V
 C511	1-136-086-00	FILM	17000pF	3%	1.2KV	C535	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
		(KV-29FA340/29FA540 ONLY)				C537	1-126-941-11	ELECT	470μF	20%	25V
C512	1-164-315-11	CERAMIC CHIP	470pF	5%	50V	C539	1-126-941-11	ELECT	470μF	20%	25V
 C513	1-129-722-00	FILM	0.047μF	5%	630V	C540	1-131-867-51	ELECT	100μF		160V
 C514	1-115-521-11	FILM	0.82μF	5%	250V						
		(KV-21FA340/21FA540 ONLY)				C541	1-128-560-11	ELECT	22μF	20%	100V
 C514	1-109-844-11	FILM	0.68μF	5%	400V	C545	1-106-387-00	MYLAR	0.068μF	10%	200V
		(KV-29FA340/29FA540 ONLY)				C548	1-100-831-91	CERAMIC CHIP	0.001μF	2%	50V
C515	1-104-987-11	MYLAR	0.001μF	5%	200V			(KV-21FA340/21FA540 ONLY)			
 C516	1-115-519-11	FILM	0.56μF	5%	250V	C549	1-100-831-91	CERAMIC CHIP	0.001μF	2%	50V
		(KV-21FA340/21FA540 ONLY)						(KV-21FA340/21FA540 ONLY)			
 C516	1-115-521-11	FILM	0.82μF	5%	250V	 C553	1-117-412-11	CERAMIC	0.24μF		250V
		(KV-29FA340/29FA540 ONLY)				 C554	1-117-214-11	CERAMIC	0.001μF	10%	2KV
C517	1-107-651-11	ELECT	4.7μF	20%	250V			(KV-21FA340/21FA540 ONLY)			
		(KV-21FA340/21FA540 ONLY)				 C554	1-117-629-11	CERAMIC	2700pF	10%	1.2KV
C517	1-107-649-11	ELECT	2.2μF	20%	250V			(KV-29FA340/29FA540 ONLY)			
		(KV-29FA340/29FA540 ONLY)				C561	1-126-967-11	ELECT	47μF	20%	50V
C518	1-106-383-00	MYLAR	0.047μF	10%	200V	C563	1-104-666-11	ELECT	220μF	20%	25V
		(KV-21FA340/21FA540 ONLY)				C565	1-126-969-11	ELECT	220μF	20%	50V
C518	1-106-387-00	MYLAR	0.068μF	10%	200V	C568	1-137-190-91	FILM	0.22μF	5%	50V
		(KV-29FA340/29FA540 ONLY)				 C581	1-165-529-11	MYLAR	0.22μF	10%	275V

REF. NO.	PART NO.	DESCRIPTION	VALUES		
C588	1-130-491-00	MYLAR	0.047μF	5%	50V
C590	1-126-964-11	ELECT	10μF	20%	50V
C600	1-117-703-11	CERAMIC (LATIN SOUTH ONLY)	0.0047μF	20%	250V
△ C601	1-165-529-11	MYLAR	0.22μF	10%	275V
C602	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
△ C603	1-165-529-11	MYLAR	0.22μF	10%	275V
C604	1-164-625-11	CERAMIC	680pF	10%	500V
△ C608	1-119-912-51	CERAMIC	0.001μF	20%	125V
C609	1-164-625-11	CERAMIC	680pF	10%	500V
C612	1-104-665-11	ELECT	100μF	20%	25V
C613	1-117-214-11	CERAMIC (LATIN SOUTH ONLY)	0.001μF	10%	2KV
C614	1-117-214-11	CERAMIC (LATIN SOUTH ONLY)	0.001μF	10%	2KV
C615	1-117-214-11	CERAMIC (LATIN SOUTH ONLY)	0.001μF	10%	2KV
C616	1-126-943-11	ELECT	2200μF	20%	25V
C617	1-123-024-21	ELECT	33μF		160V
C619	1-117-214-11	CERAMIC (LATIN SOUTH ONLY)	0.001μF	10%	2KV
C620	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C621	1-100-961-11	ELECT	680μF	20%	250V
△ C622	1-119-912-51	CERAMIC	0.001μF	20%	125V
C629	1-100-961-11	ELECT	680μF	20%	250V
C632	1-126-943-11	ELECT	2200μF	20%	25V
C633	1-136-479-11	FILM	0.001μF	5%	100V
C634	1-126-964-11	ELECT	10μF	20%	50V
C635	1-126-963-11	ELECT	4.7μF	20%	50V
C637	1-136-165-00	FILM	0.1μF	5%	50V
C638	1-126-943-11	ELECT	2200μF	20%	25V
C642	1-126-969-11	ELECT	220μF	20%	50V
C643	1-136-165-00	FILM	0.1μF	5%	50V
C645	1-162-964-11	CERAMIC CHIP	0.001μF	10%	50V
C647	1-126-947-11	ELECT	47μF	20%	35V
C648	1-164-143-11	CERAMIC	0.001μF	10%	1KV
C649	1-164-143-11	CERAMIC	0.001μF	10%	1KV
C650	1-100-120-51	CERAMIC (LATIN NORTH ONLY)	1000μF	20%	35V
C651	1-126-943-11	ELECT (LATIN SOUTH ONLY)	2200μF	20%	25V
C651	1-126-942-61	ELECT (LATIN NORTH ONLY)	1000μF	20%	25V
C652	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C653	1-126-964-11	ELECT	10μF	20%	50V
C655	1-135-572-51	ELECT (LATIN SOUTH ONLY)	1000μF	20%	50V
C656	1-161-964-91	CERAMIC	0.0047μF		250V
C657	1-135-572-51	ELECT (LATIN SOUTH ONLY)	1000μF	20%	50V
C658	1-161-964-91	CERAMIC	0.0047μF		250V
C659	1-164-677-11	CERAMIC CHIP	0.033μF	10%	16V
C661	1-126-947-11	ELECT	47μF	20%	35V
C669	1-164-625-11	CERAMIC	680pF	10%	500V
C670	1-164-625-11	CERAMIC	680pF	10%	500V
C672	1-165-953-11	FILM	47000pF	3%	800V
C690	1-126-971-11	ELECT	470μF	20%	50V
CONNECTOR					
* CN201	1-564-508-11	PLUG, CONNECTOR			5P
CN202	1-695-915-11	TAB (CONTACT)			
* CN412	1-564-506-11	PLUG, CONNECTOR			3P
* CN501	1-580-798-11	CONNECTOR PIN (DY)			6P
* CN503	1-564-510-11	PLUG, CONNECTOR			7P
CN505	1-785-879-21	ONE TOUCH CONNECTOR (KV-29FA340/29FA540 ONLY)			
* CN508	1-508-786-00	PIN, CONNECTOR (5MM PITCH) (KV-21FA340/21FA540 ONLY)			2P
* CN508	1-573-963-11	PIN, CONNECTOR (PC BOARD) (KV-29FA340/29FA540 ONLY)			3P
* △ CN600	1-580-843-11	PIN, CONNECTOR (POWER)			
CN601	1-695-915-11	TAB (CONTACT)			
DIODE					
D009	8-719-982-22	DIODE			MTZJ-30D
D200	8-719-069-60	DIODE			UDZSTE-179.1B
D201	8-719-069-60	DIODE			UDZSTE-179.1B
D209	8-719-069-60	DIODE			UDZSTE-179.1B
D210	8-719-069-60	DIODE			UDZSTE-179.1B
D211	8-719-069-60	DIODE			UDZSTE-179.1B
D212	8-719-069-60	DIODE			UDZSTE-179.1B
D213	8-719-510-02				

NOTE: The components identified by shading and  mark are critical for safety. Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION	VALUES	REF. NO.	PART NO.	DESCRIPTION	VALUES
D310	8-719-108-12	DIODE	RD9.1EW	D614	8-719-057-52	DIODE	EZ0150AV1
D311	8-719-069-60	DIODE	UDZSTE-179.1B	D615	6-501-247-01	DIODE	D15XBS6
D324	8-719-069-60	DIODE	UDZSTE-179.1B	D618	8-719-979-64	DIODE	UF4005/23
D325	8-719-069-60	DIODE	UDZSTE-179.1B	D620	8-719-404-50	DIODE	MA111-TX
D405	8-719-404-50	DIODE	MA111-TX	D621	6-500-181-01	DIODE	MA6D50
D414	8-719-921-63	DIODE	MTZJ-7.5B	D628	8-719-404-50	DIODE	MA111-TX
D418	1-216-864-11	SHORT CHIP		D629	8-719-083-82	DIODE	UDZS-TE17-12B
D425	8-719-056-84	DIODE	UDZ-TE-17-7.5B	D631	6-500-567-01	DIODE	10ERB20-TA1B2
D500	8-719-945-80	DIODE	ERC06-15S	D640	8-719-404-50	DIODE	MA111-TX
D501	8-719-404-50	DIODE	MA111-TX	D641	8-719-404-50	DIODE	MA111-TX
⚠ D503	8-719-945-80	DIODE (KV-29FA340/29FA540 ONLY)	ERC06-15S	D645	6-500-567-01	DIODE	10ERB20-TA1B2
D504	8-719-312-10	DIODE	RU4AM-T3	D646	8-719-404-50	DIODE	MA111-TX
D505	8-719-908-03	DIODE	GP08D	D647	6-500-567-01	DIODE	10ERB20-TA1B2
D506	8-719-908-03	DIODE	GP08D	D651	8-719-109-93	DIODE	RD6.2ESB2
D508	8-719-404-50	DIODE	MA111-TX	D690	8-719-982-13	DIODE	MTZJ-27
D509	8-719-404-50	DIODE	MA111-TX				
⚠ D515	8-719-075-41	DIODE	PR1004GT		FUSE		
D516	8-719-404-50	DIODE	MA111-TX	⚠ F601	1-532-506-32	FUSE (LATIN SOUTH ONLY)	6.3A 250V
D518	8-719-404-50	DIODE	MA111-TX	⚠ F601	1-532-748-11	FUSE (LATIN NORTH ONLY)	6.3A 125V
⚠ D519	8-719-302-43	DIODE	EL1Z				
D520	8-719-404-50	DIODE	MA111-TX		FERRITE BEAD		
D521	8-719-110-08	DIODE	RD8.2ESB2 (KV-21FA340/21FA540 ONLY)	FB501	1-412-911-11	FERRITE	0μH
D522	8-719-404-50	DIODE	MA111-TX	FB502	1-412-911-11	FERRITE	0μH
D525	8-719-404-50	DIODE	MA111-TX	FB503	1-412-911-11	FERRITE	0μH
D526	8-719-404-50	DIODE	MA111-TX	FB505	1-412-911-11	FERRITE	0μH
⚠ D530	6-500-531-01	DIODE	PG154R	FB602	1-412-911-11	FERRITE	0μH
D531	6-500-531-01	DIODE	PG154R	FB604	1-412-911-11	FERRITE	0μH
D534	8-719-074-25	DIODE	PG104R	FB613	1-410-397-21	FERRITE	1.1μH
D535	8-719-404-50	DIODE	MA111-TX	FB614	1-412-911-11	FERRITE	0μH
D551	8-719-069-55	DIODE	UDZSTE-175.6B	FB616	1-412-911-11	FERRITE	0μH
D561	8-719-075-33	DIODE	1N4003GA	FB617	1-412-911-11	FERRITE	0μH
D580	8-719-991-33	DIODE	1SS133T-77				
D588	8-719-404-50	DIODE	MA111-TX		FUSE HOLDER		
D589	8-719-404-50	DIODE	MA111-TX	⚠ FH1	1-533-223-11	FUSE HOLDER	0A 0V
D590	8-719-404-50	DIODE	MA111-TX	⚠ FH2	1-533-223-11	FUSE HOLDER	0A 0V
D600	8-719-510-53	DIODE	D4SB60L				
D602	8-719-064-12	DIODE	S1NB60-4062		IC		
D611	8-719-050-18	DIODE	D4SBL20U	IC302	8-759-353-00	IC	NJM2534M(TE2)
D612	8-719-068-00	DIODE (KV-29FA340/29FA540 ONLY)	ERC04-06SE	IC400	6-703-190-01	IC	NJW1134AGK1-TE2
D613	8-719-068-00	DIODE (KV-29FA340/29FA540 ONLY)	ERC04-06SE	IC501	8-759-700-07	IC	NJM2903M
				⚠ IC561	6-703-470-01	IC (LATIN SOUTH ONLY)	STV9302A
				⚠ IC561	6-708-394-01	IC (LATIN NORTH ONLY)	STV9325

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REF. NO.	PART NO.	DESCRIPTION	VALUES	REF. NO.	PART NO.	DESCRIPTION	VALUES
IC600	6-705-810-01	IC	MCZ3001DB	PHOTO COUPLER			
IC601	8-749-017-76	IC	DM-58M	△ PH602	8-749-924-35	PHOTO COUPLER	ON3171-R
IC609	8-759-653-07	IC	PQ09RD21J00H	IC LINK			
JACK				PS609	1-532-984-11	IC LINK	2A 50V
* J201	1-818-351-11	S TERMINAL BLOCK	5P	TRANSISTOR			
* J206	1-817-461-12	PIN JACK BLOCK		Q005	8-729-120-28	TRANSISTOR	2SC1623-L5L6
* J207	1-818-352-13	PIN JACK WITH DIN		Q300	8-729-600-22	TRANSISTOR	2SA1235-F
CHIP CONDUCTOR				Q304	8-729-120-28	TRANSISTOR	2SC1623-L5L6
JR1	1-216-864-11	SHORT CHIP				(KV-29FA340/29FA540 ONLY)	
JR2	1-216-864-11	SHORT CHIP		Q402	8-729-120-28	TRANSISTOR	2SC1623-L5L6
JR3	1-216-864-11	SHORT CHIP					
JR4	1-216-864-11	SHORT CHIP		Q403	8-729-120-28	TRANSISTOR	2SC1623-L5L6
JR9	1-216-864-11	SHORT CHIP		Q405	8-729-120-28	TRANSISTOR	2SC1623-L5L6
				Q412	8-729-120-28	TRANSISTOR	2SC1623-L5L6
JR10	1-216-864-11	SHORT CHIP		Q501	8-729-140-50	TRANSISTOR	2SC3209LK
JR16	1-216-864-11	SHORT CHIP		△ Q502	6-550-042-01	TRANSISTOR	2SD2627LS-YB11
JR332	1-216-864-11	SHORT CHIP				(KV-21FA340/21FA540 ONLY)	
JR334	1-216-864-11	SHORT CHIP		△ Q502	6-550-107-01	TRANSISTOR	2SD2645-YB
JR335	1-216-864-11	SHORT CHIP				(KV-29FA340/29FA540 ONLY)	
				Q509	8-729-120-28	TRANSISTOR	2SC1623-L5L6
JR404	1-216-864-11	SHORT CHIP		△ Q511	8-729-120-28	TRANSISTOR	2SC1623-L5L6
JR410	1-216-864-11	SHORT CHIP		△ Q512	8-729-809-29	TRANSISTOR	2SC4159-E
JR411	1-216-864-11	SHORT CHIP					
JR501	1-216-864-11	SHORT CHIP		Q530	8-729-120-28	TRANSISTOR	2SC1623-L5L6
JR502	1-216-864-11	SHORT CHIP		Q531	8-729-600-22	TRANSISTOR	2SA1235-F
COIL				Q532	6-550-362-01	TRANSISTOR	KTA1279
L003	1-414-856-11	INDUCTOR	10μH	Q561	8-729-120-28	TRANSISTOR	2SC1623-L5L6
L004	1-414-857-11	INDUCTOR	100μH	Q562	8-729-600-22	TRANSISTOR	2SA1235-F
L009	1-414-857-11	INDUCTOR	100μH				
L501	1-406-677-11	INDUCTOR	10MH	Q564	8-729-120-28	TRANSISTOR	2SC1623-L5L6
L502	1-412-552-11	INDUCTOR	2.2MH	Q582	8-729-120-28	TRANSISTOR	2SC1623-L5L6
				Q583	8-729-600-22	TRANSISTOR	2SA1235-F
L503	1-406-677-11	INDUCTOR	10MH	Q600	6-550-882-01	TRANSISTOR	2SK3568(LBS2SONY,Q
△ L505	1-419-714-11	INDUCTOR	100μH	Q601	6-550-882-01	TRANSISTOR	2SK3568(LBS2SONY,Q
		(KV-29FA340/29FA540 ONLY)					
L510	1-406-981-21	INDUCTOR	470μH	Q605	8-729-140-96	TRANSISTOR	2SD774-34
		(KV-21FA340/21FA540 ONLY)		Q606	8-729-120-28	TRANSISTOR	2SC1623-L5L6
				Q608	8-729-922-37	TRANSISTOR	2SD2144S-UVW
L511	1-409-955-31	INDUCTOR	8MH	Q611	6-550-409-01	TRANSISTOR	KSC2383-O
L515	1-412-529-11	INDUCTOR	22μH	Q690	8-729-600-22	TRANSISTOR	2SA1235-F
L517	1-412-552-11	INDUCTOR	2.2MH	Q691	8-729-026-39	TRANSISTOR	2SA933AS-QT
		(KV-29FA340/29FA540 ONLY)		RESISTOR			
L605	1-412-911-11	FERRITE	0μH	R84	1-249-377-11	CARBON	0.47 5% 1/4W
L606	1-412-911-11	FERRITE	0μH	R085	1-215-924-00	METAL OXIDE	15K 5% 3W
L608	1-412-529-11	INDUCTOR	22μH	R086	1-216-839-11	METAL CHIP	33K 5% 1/10W
L609	1-412-529-11	INDUCTOR	22μH				

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REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
R087	1-216-837-11	METAL CHIP	22K	5%	1/10W	R397	1-216-813-11	METAL CHIP	220	5%	1/10W
R089	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R398	1-216-813-11	METAL CHIP	220	5%	1/10W
R099	1-216-809-11	METAL CHIP	100	5%	1/10W	R400	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R102	1-216-864-11	SHORT CHIP				R401	1-216-809-11	METAL CHIP	100	5%	1/10W
R107	1-216-809-11	METAL CHIP	100	5%	1/10W	R403	1-247-807-31	CARBON	100	5%	1/4W
R108	1-216-809-11	METAL CHIP	100	5%	1/10W	R405	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R202	1-216-813-11	METAL CHIP	220	5%	1/10W	R408	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R206	1-216-813-11	METAL CHIP	220	5%	1/10W	R411	1-249-393-11	CARBON	10	5%	1/4W
R207	1-216-845-11	METAL CHIP	100K	5%	1/10W	R416	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R208	1-216-813-11	METAL CHIP	220	5%	1/10W	R422	1-218-867-11	METAL CHIP	6.8K	0.50%	1/10W
R209	1-216-845-11	METAL CHIP	100K	5%	1/10W	R424	1-216-821-11	METAL CHIP	1K	5%	1/10W
R210	1-216-813-11	METAL CHIP	220	5%	1/10W	R425	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R217	1-216-845-11	METAL CHIP	100K	5%	1/10W	R429	1-216-841-11	METAL CHIP	47K	5%	1/10W
R218	1-216-845-11	METAL CHIP	100K	5%	1/10W	R450	1-216-837-11	METAL CHIP	22K	5%	1/10W
R219	1-216-813-11	METAL CHIP	220	5%	1/10W	R477	1-216-819-11	METAL CHIP	680	5%	1/10W
R220	1-216-813-11	METAL CHIP	220	5%	1/10W	R478	1-216-833-11	METAL CHIP	10K	5%	1/10W
R222	1-216-845-11	METAL CHIP	100K	5%	1/10W	R479	1-216-821-11	METAL CHIP	1K	5%	1/10W
R223	1-216-813-11	METAL CHIP	220	5%	1/10W	R500	1-216-813-11	METAL CHIP	220	5%	1/10W
R224	1-216-813-11	METAL CHIP	220	5%	1/10W	R502	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R225	1-216-845-11	METAL CHIP	100K	5%	1/10W	R503	1-249-425-11	CARBON	4.7K	5%	1/4W
R232	1-216-853-11	METAL CHIP	470K	5%	1/10W	R504	1-216-365-00	METAL OXIDE	0.47	5%	2W
R233	1-216-853-11	METAL CHIP	470K	5%	1/10W			(KV-21FA340/21FA540 ONLY)			
R234	1-216-813-11	METAL CHIP	220	5%	1/10W	R504	1-243-608-71	METAL OXIDE	1.5K	5%	3W
R235	1-216-813-11	METAL CHIP	220	5%	1/10W			(KV-29FA340/29FA540 ONLY)			
R236	1-216-809-11	METAL CHIP	100	5%	1/10W	R506	1-243-683-71	METAL OXIDE	47	5%	1W
R237	1-216-809-11	METAL CHIP	100	5%	1/10W						
R301	1-216-809-11	METAL CHIP	100	5%	1/10W	R507	1-249-401-11	METAL OXIDE	47	5%	1/4W
R302	1-218-839-11	METAL CHIP	470	0.50%	1/10W			(KV-29FA340/29FA540 ONLY)			
R303	1-218-841-11	METAL CHIP	560	0.50%	1/10W	R508	1-216-833-11	METAL CHIP	10K	5%	1/10W
R328	1-216-833-11	METAL CHIP	10K	5%	1/10W	R509	1-260-320-11	CARBON	220	5%	1/2W
		(KV-29FA340/29FA540 ONLY)						(KV-21FA340/21FA540 ONLY)			
R334	1-216-809-11	METAL CHIP	100	5%	1/10W	R509	1-260-328-11	CARBON	1K	5%	1/2W
		(KV-29FA340/29FA540 ONLY)						(KV-29FA340/29FA540 ONLY)			
R335	1-216-821-11	METAL CHIP	1K	5%	1/10W	 R510	1-215-886-11	METAL OXIDE	100	5%	2W
		(KV-29FA340/29FA540 ONLY)						(KV-21FA340/21FA540 ONLY)			
R359	1-216-833-11	METAL CHIP	10K	5%	1/10W	 R510	1-215-908-00	METAL OXIDE	33	5%	3W
								(KV-29FA340/29FA540 ONLY)			
R367	1-216-864-11	SHORT CHIP				R512	1-215-910-00	METAL OXIDE	68	5%	3W
R369	1-216-864-11	SHORT CHIP						(KV-21FA340/21FA540 ONLY)			
R390	1-216-813-11	METAL CHIP	220	5%	1/10W	R512	1-243-531-71	METAL OXIDE	100	5%	3W
R391	1-218-285-11	METAL CHIP	75	5%	1/10W			(KV-29FA340/29FA540 ONLY)			
R393	1-218-285-11	METAL CHIP	75	5%	1/10W	R513	1-216-841-11	METAL CHIP	47K	5%	1/10W
R394	1-216-813-11	METAL CHIP	220	5%	1/10W	R514	1-216-833-11	METAL CHIP	10K	5%	1/10W
R395	1-216-813-11	METAL CHIP	220	5%	1/10W	R517	1-249-415-11	CARBON	680	5%	1/4W
R396	1-216-813-11	METAL CHIP	220	5%	1/10W	R518	1-216-833-11	METAL CHIP	10K	5%	1/10W

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A component identified by this  symbol indicates that it has been carefully factory-selected to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.



REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
R519	1-249-411-11	CARBON	330	5%	1/4W	R548	1-215-453-00	METAL	22K	1%	1/4W
R520	1-243-531-71	METAL OXIDE (KV-29FA340/29FA540 ONLY)	100	5%	3W	R549	1-215-429-00	METAL	2.2K	1%	1/4W
R521	1-216-815-11	METAL CHIP	330	5%	1/10W	 R550	1-249-377-11	CARBON (KV-29FA340/29FA540 ONLY)	0.47	5%	1/4W
 R523	1-218-873-11	METAL CHIP (KV-21FA340/21FA540 ONLY)	12K	0.50%	1/10W	R551	1-215-873-00	METAL (KV-29FA340/29FA540 ONLY)	4.7K		1W
 R523	1-218-879-11	METAL CHIP (KV-29FA340/29FA540 ONLY)	22K	0.50%	1/10W	R552	1-215-921-11	METAL OXIDE (KV-21FA340/21FA540 ONLY)	4.7K	5%	3W
 R524	1-216-833-11	METAL CHIP	10K	5%	1/10W	R552	1-243-608-71	METAL OXIDE (KV-29FA340/29FA540 ONLY)	1.5K	5%	3W
 R525	1-218-869-11	METAL CHIP	8.2K	0.50%	1/10W	 R553	1-249-377-11	CARBON	0.47	5%	1/4W
 R528	1-218-853-11	METAL CHIP (KV-21FA340/21FA540 ONLY)	1.8K	0.50%	1/10W	R559	1-216-805-11	METAL CHIP	47	5%	1/10W
 R528	1-218-879-11	METAL CHIP (KV-29FA340/29FA540 ONLY)	22K	0.50%	1/10W	R561	1-215-445-00	METAL	10K	1%	1/4W
R529	1-218-895-11	METAL CHIP (KV-21FA340/21FA540 ONLY)	100K	0.50%	1/10W	 R563	1-216-351-00	METAL OXIDE (KV-21FA340/21FA540 ONLY)	1.5	5%	1W
R529	1-218-879-11	METAL CHIP (KV-29FA340/29FA540 ONLY)	22K	0.50%	1/10W	 R563	1-214-798-21	METAL OXIDE (KV-29FA340/29FA540 ONLY)	1.8	1%	1/2W
 R530	1-218-716-11	METAL CHIP (KV-21FA340/21FA540 ONLY)	10K	0.50%	1/10W	R564	1-247-895-91	CARBON	470K	5%	1/4W
 R530	1-218-873-11	METAL CHIP (KV-29FA340/29FA540 ONLY)	12K	0.50%	1/10W	R565	1-215-889-00	METAL OXIDE	330	5%	2W
 R531	1-218-901-11	METAL CHIP (KV-29FA340/29FA540 ONLY)	180K	0.5%	1/10W	R566	1-218-867-11	METAL CHIP	6.8K	0.50%	1/10W
R532	1-218-842-11	METAL CHIP (KV-21FA340/21FA540 ONLY)	620	0.50%	1/10W	 R567	1-249-385-11	CARBON	2.2	5%	1/4W
R532	1-216-810-11	METAL CHIP (KV-29FA340/29FA540 ONLY)	120	5%	1/10W	R568	1-218-867-11	METAL CHIP	6.8K	0.50%	1/10W
R533	1-215-879-11	METAL OXIDE	47K	5%	1W	R569	1-218-871-11	METAL CHIP	10K	0.50%	1/10W
R534	1-216-833-11	METAL CHIP	10K	5%	1/10W	R570	1-216-833-11	METAL CHIP	10K	5%	1/10W
R535	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R571	1-216-833-11	METAL CHIP	10K	5%	1/10W
 R536	1-260-288-11	CARBON	0.47	5%	1/2W	R572	1-216-833-11	METAL CHIP	10K	5%	1/10W
 R537	1-260-288-11	CARBON	0.47	5%	1/2W	R573	1-218-873-11	METAL CHIP	12K	0.50%	1/10W
R538	1-247-887-00	CARBON	220K	5%	1/4W	 R574	1-214-798-21	METAL OXIDE (KV-29FA340/29FA540 ONLY)	1.8	1%	1/2W
R541	1-216-841-11	METAL CHIP	47K	5%	1/10W	R576	1-243-535-71	METAL OXIDE (KV-21FA340/21FA540 ONLY)	220	5%	3W
R542	1-216-833-11	METAL CHIP	10K	5%	1/10W	R576	1-243-523-71	METAL OXIDE (KV-29FA340/29FA540 ONLY)	22	5%	3W
 R543	1-249-377-11	CARBON	0.47	5%	1/4W	R580	1-216-845-11	METAL CHIP	100K	5%	1/10W
R544	1-216-821-11	METAL CHIP	1K	5%	1/10W	R583	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
 R545	1-249-387-11	CARBON	3.3	5%	1/4W	R584	1-249-429-11	CARBON	10K	5%	1/4W
R546	1-215-453-00	METAL	22K	1%	1/4W	R586	1-216-843-11	METAL CHIP	68K	5%	1/10W
R547	1-215-453-00	METAL (KV-21FA340/21FA540 ONLY)	22K	1%	1/4W	R589	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R547	1-215-445-00	METAL (KV-29FA340/29FA540 ONLY)	10K	1%	1/4W	R590	1-216-833-11	METAL CHIP	10K	5%	1/10W
						R591	1-249-377-11	CARBON (KV-21FA340/21FA540 ONLY)	0.47	5%	1/4W
						R592	1-243-803-71	METAL OXIDE	0.33	5%	1W
						R593	1-249-417-11	CARBON	1K	5%	1/4W

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REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
R594	1-249-429-11	CARBON	10K	5%	1/4W	R672	1-243-979-71	METAL OXIDE	0.1	5%	2W
R595	1-247-891-00	CARBON	330K	5%	1/4W	Δ R674	1-220-926-11	FUSIBLE	0.47	10%	1/2W
R596	1-249-441-11	CARBON	100K	5%	1/4W	R681	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R597	1-216-864-11	SHORT CHIP				R686	1-240-303-31	METAL	0.22	5%	10W
R598	1-218-867-11	METAL CHIP	6.8K	0.50%	1/10W	R687	1-220-797-11	METAL	0.47	5%	10W
R599	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R688	1-240-303-31	METAL	0.22	5%	10W
Δ R603	1-219-513-11	METAL CHIP (LATIN NORTH ONLY)	4.7M	5%	1/2W	R691	1-216-837-11	METAL CHIP	22K	5%	1/10W
R604	1-216-821-11	METAL CHIP	1K	5%	1/10W	R692	1-216-837-11	METAL CHIP	22K	5%	1/10W
R606	1-216-833-11	METAL CHIP	10K	5%	1/10W	R694	1-216-837-11	METAL CHIP	22K	5%	1/10W
R607	1-216-833-11	METAL CHIP	10K	5%	1/10W	R698	1-247-289-00	METAL (LATIN SOUTH ONLY)	8.2M	5%	1W
R608	1-216-833-11	METAL CHIP	10K	5%	1/10W	R1510	1-216-833-11	METAL CHIP	10K	5%	1/10W
R609	1-216-389-11	METAL OXIDE	1	5%	3W	R1511	1-216-833-11	METAL CHIP	10K	5%	1/10W
R610	1-216-833-11	METAL CHIP	10K	5%	1/10W	RELAY					
R611	1-216-833-11	METAL CHIP	10K	5%	1/10W	RY501	1-755-198-11	RELAY, AC POWER			
R612	1-260-131-11	CARBON	470K	5%	1/2W	Δ RY600	1-755-395-11	RELAY (AC POWER)			
R613	1-216-833-11	METAL CHIP	10K	5%	1/10W	SWITCH					
Δ R615	1-202-933-61	FUSIBLE	0.1	10%	1/2W	S501	1-572-707-11	SWITCH, LEVER			
R616	1-216-822-11	METAL CHIP	1.2K	5%	1/10W	S502	1-572-707-11	SWITCH, LEVER (KV-29FA340/29FA540 ONLY)			
R617	1-216-821-11	METAL CHIP	1K	5%	1/10W	TRANSFORMER					
R618	1-216-864-11	SHORT CHIP				T501	1-433-836-11	TRANSFORMER, HORIZONTAL DRIVE			
R619	1-249-377-11	CARBON	0.47	5%	1/4W	Δ T502	1-435-869-11	TRANSFORMER, FERRITE (PMT) (KV-29FA340/29FA540 ONLY)			
R620	1-215-857-11	METAL OXIDE	10	5%	1W	Δ T503	1-453-316-21	FBT ASSY NX-1748//X4A4 (KV-21FA340/21FA540 ONLY)			
R625	1-216-817-11	METAL CHIP	470	5%	1/10W	Δ T503	1-453-310-11	FBT ASSY NX-4521//X4J4 (KV-29FA340/29FA540 ONLY)			
R626	1-218-869-11	METAL CHIP	8.2K	0.50%	1/10W	Δ T505	1-435-079-21	TRANSFORMER, HORIZONTAL LINEAR (KV-21FA340/21FA540 ONLY)			
R628	1-260-131-11	CARBON	470K	5%	1/2W	Δ T505	1-433-850-11	TRANSFORMER, HORIZONTAL LINEAR (KV-29FA340/29FA540 ONLY)			
R629	1-245-478-21	METAL	470K	1%	1/4W	Δ T602	1-443-402-11	TRANSFORMER, LINE FILTER			
R630	1-245-478-21	METAL	470K	1%	1/4W	Δ T603	1-439-854-11	TRANSFORMER, STANDBY (LATIN SOUTH ONLY)			
R631	1-218-875-11	METAL CHIP	15K	0.50%	1/10W	Δ T603	1-437-783-11	TRANSFORMER, STANDBY (LATIN NORTH ONLY)			
R632	1-218-823-11	METAL CHIP	100	0.50%	1/10W	Δ T604	1-445-014-11	CONVERTER TRANSFORMER			
R640	1-249-417-11	CARBON	1K	5%	1/4W	Δ T605	1-443-402-11	TRANSFORMER, LINE FILTER			
R641	1-216-389-11	METAL OXIDE	1	5%	3W						
R647	1-211-992-11	METAL CHIP	91	0.50%	1/10W						
R648	1-216-864-11	SHORT CHIP									
R650	1-216-845-11	METAL CHIP	100K	5%	1/10W						
R651	1-216-845-11	METAL CHIP	100K	5%	1/10W						
R658	1-249-393-11	CARBON	10	5%	1/4W						
R659	1-249-393-11	CARBON	10	5%	1/4W						
R660	1-216-833-11	METAL CHIP	10K	5%	1/10W						
R661	1-249-415-11	CARBON	680	5%	1/4W						
R667	1-216-833-11	METAL CHIP	10K	5%	1/10W						
Δ R668	1-249-413-11	CARBON	470	5%	1/4W						
R670	1-216-833-11	METAL CHIP	10K	5%	1/10W						
R671	1-243-979-71	METAL OXIDE	0.1	5%	2W						

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REF. NO.	PART NO.	DESCRIPTION	VALUES	REF. NO.	PART NO.	DESCRIPTION	VALUES
THERMISTOR				C713	1-126-964-11	ELECT (KV-29FA340/29FA540 ONLY)	10μF 20% 50V
TH501	1-800-193-00	THERMISTOR		C714	1-126-947-11	ELECT (KV-29FA340/29FA540 ONLY)	47μF 20% 35V
THP501	1-803-540-11	THERMISTOR (LATIN SOUTH ONLY)		C715	1-162-114-00	CERAMIC	0.0047μF 2KV
THP501	1-803-539-11	THERMISTOR (KV-21FA340/21FA540 LATIN NORTH ONLY)		C716	1-162-114-00	CERAMIC	0.0047μF 2KV
THP501	1-803-970-11	THERMISTOR (KV-29FA340/29FA540 LATIN NORTH ONLY)		C719	1-126-947-11	ELECT (KV-29FA340/29FA540 ONLY)	47μF 20% 35V
TUNER				C734	1-164-645-11	CERAMIC	1000pF 10% 500V
 TU001	8-598-593-70	TUNER, FSS BTF-WA421		C901	1-107-667-11	ELECT (KV-29FA340/29FA540 ONLY)	2.2μF 20% 400V
VARISTOR				C902	1-107-364-11	MYLAR (KV-29FA340/29FA540 ONLY)	0.01μF 10% 200V
 VDR600	1-804-995-11	VARISTOR (LATIN SOUTH ONLY)		C903	1-126-935-11	ELECT (KV-29FA340/29FA540 ONLY)	470μF 20% 16V
 VDR600	1-810-974-21	VARISTOR (LATIN NORTH ONLY)		C904	1-130-471-00	MYLAR (KV-29FA340/29FA540 ONLY)	0.001μF 5% 50V
CV A-1175-394-A CV (VAR) BOARD, MOUNTED (KV-29FA340/29FA540 ONLY) A-1181-165-A CV (VAR) BOARD, MOUNTED (KV-21FA340/21FA540 ONLY) 4-382-854-11 SCREW (M3X10), P, SW (+)				C905	1-107-364-11	MYLAR (KV-29FA340/29FA540 ONLY)	0.01μF 10% 200V
				C906	1-130-471-00	MYLAR (KV-29FA340/29FA540 ONLY)	0.001μF 5% 50V
				C907	1-107-963-11	ELECT (KV-29FA340/29FA540 ONLY)	33μF 20% 250V
				C908	1-126-935-11	ELECT (KV-29FA340/29FA540 ONLY)	470μF 20% 16V
CAPACITOR				C909	1-104-999-11	MYLAR (KV-29FA340/29FA540 ONLY)	0.1μF 5% 200V
C701	1-126-947-11	ELECT (KV-29FA340/29FA540 ONLY)	47μF 20% 35V	C910	1-104-999-11	MYLAR (KV-29FA340/29FA540 ONLY)	0.1μF 5% 200V
C702	1-136-497-81	FILM (KV-29FA340/29FA540 ONLY)	0.1μF 5% 50V	C911	1-126-933-11	ELECT (KV-29FA340/29FA540 ONLY)	100μF 20% 16V
C703	1-126-947-11	ELECT (KV-29FA340/29FA540 ONLY)	47μF 20% 35V	C912	1-126-933-11	ELECT (KV-29FA340/29FA540 ONLY)	100μF 20% 16V
C704	1-107-652-11	ELECT	10μF 20% 250V	C913	1-102-074-00	CERAMIC (KV-29FA340/29FA540 ONLY)	0.001μF 10% 50V
C705	1-107-652-11	ELECT	10μF 20% 250V	C914	1-130-491-00	MYLAR (KV-29FA340/29FA540 ONLY)	0.047μF 5% 50V
C706	1-137-528-11	MYLAR	0.1μF 10% 250V	C930	1-104-655-91	ELECT (KV-29FA340/29FA540 ONLY)	470μF 20% 6.3V
C708	1-126-235-11	ELECT (KV-29FA340/29FA540 ONLY)	100μF 20% 16V	C931	1-104-655-91	ELECT (KV-29FA340/29FA540 ONLY)	470μF 20% 6.3V
C709	1-126-964-11	ELECT (KV-29FA340/29FA540 ONLY)	10μF 20% 50V				
C710	1-126-964-11	ELECT (KV-29FA340/29FA540 ONLY)	10μF 20% 50V				
C711	1-102-074-00	CERAMIC	0.001μF 10% 50V				

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REF. NO.	PART NO.	DESCRIPTION	VALUES	REF. NO.	PART NO.	DESCRIPTION	VALUES
CONNECTOR				COIL			
*	CN701	1-564-506-11	PLUG, CONNECTOR (KV-29FA340/29FA540 ONLY)	3P	L701	1-410-482-31	INDUCTOR 100μH
	CN703	1-695-915-11	TAB (CONTACT)		L901	1-410-473-11	INDUCTOR 18μH (KV-29FA340/29FA540 ONLY)
*	CN704	1-785-879-21	ONE TOUCH CONNECTOR		TRANSISTOR		
*	CN706	1-564-510-11	PLUG, CONNECTOR	7P	Q700	8-729-120-28	TRANSISTOR 2SC1623-L5L6 (KV-29FA340/29FA540 ONLY)
*	CN901	1-564-512-11	PLUG, CONNECTOR (KV-29FA340/29FA540 ONLY)	9P	Q701	8-729-120-28	TRANSISTOR 2SC1623-L5L6 (KV-29FA340/29FA540 ONLY)
*	CN902	1-564-506-11	PLUG, CONNECTOR (KV-29FA340/29FA540 ONLY)	3P	Q703	8-729-120-28	TRANSISTOR 2SC1623-L5L6 (KV-29FA340/29FA540 ONLY)
DIODE				Q901	6-551-125-01	TRANSISTOR 2SC59930J1S0 (KV-29FA340/29FA540 ONLY)	
D701	8-719-901-83	DIODE	1SS83	Q902	6-551-126-01	TRANSISTOR 2SA21400J1S0 (KV-29FA340/29FA540 ONLY)	
D702	8-719-901-83	DIODE	1SS83	Q903	8-729-120-28	TRANSISTOR 2SC1623-L5L6 (KV-29FA340/29FA540 ONLY)	
D703	8-719-901-83	DIODE	1SS83	Q904	8-729-120-28	TRANSISTOR 2SC1623-L5L6 (KV-29FA340/29FA540 ONLY)	
D704	8-719-074-25	DIODE	PG104R	Q905	8-729-600-22	TRANSISTOR 2SA1235-F (KV-29FA340/29FA540 ONLY)	
D705	8-719-108-12	DIODE	RD9.1EW	Q906	8-729-120-28	TRANSISTOR 2SC1623-L5L6 (KV-29FA340/29FA540 ONLY)	
D706	8-719-982-22	DIODE	MTZJ-30D (KV-29FA340/29FA540 ONLY)	Q907	8-729-120-28	TRANSISTOR 2SC1623-L5L6 (KV-29FA340/29FA540 ONLY)	
D901	8-719-924-11	DIODE	MTZJ-T-77-22 (KV-29FA340/29FA540 ONLY)	Q908	8-729-600-22	TRANSISTOR 2SA1235-F (KV-29FA340/29FA540 ONLY)	
D902	8-719-924-11	DIODE	MTZJ-T-77-22 (KV-29FA340/29FA540 ONLY)	RESISTOR			
D903	8-719-991-33	DIODE	1SS133T-77 (KV-29FA340/29FA540 ONLY)	R700	1-249-433-11	CARBON 22K 5% 1/4W (KV-29FA340/29FA540 ONLY)	
D905	8-719-404-50	DIODE	MA111-TX (KV-29FA340/29FA540 ONLY)	R701	1-216-833-11	METAL CHIP 10K 5% 1/10W (KV-29FA340/29FA540 ONLY)	
D906	8-719-404-50	DIODE	MA111-TX (KV-29FA340/29FA540 ONLY)	R702	1-216-811-11	METAL CHIP 150 5% 1/10W (KV-29FA340/29FA540 ONLY)	
D907	8-719-404-50	DIODE	MA111-TX (KV-29FA340/29FA540 ONLY)	R703	1-216-809-11	METAL CHIP 100 5% 1/10W (KV-29FA340/29FA540 ONLY)	
D908	8-719-404-50	DIODE	MA111-TX (KV-29FA340/29FA540 ONLY)	R704	1-249-419-11	CARBON 1.5K 5% 1/4W (KV-29FA340/29FA540 ONLY)	
IC				R705	1-249-429-11	CARBON 10K 5% 1/4W (KV-29FA340/29FA540 ONLY)	
IC701	8-759-803-42	IC	LA6500-FA (KV-29FA340/29FA540 ONLY)	R706	1-249-381-11	CARBON 1 5% 1/4W (KV-29FA340/29FA540 ONLY)	
IC702	8-759-562-43	IC	TDA6108JF/N1B				
IC703	8-759-701-59	IC	NJM78M09FA (KV-29FA340/29FA540 ONLY)				
JACK							
	J701	1-451-470-21	SOCKET, CRT				



REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
R707	1-249-383-11	CARBON (KV-29FA340/29FA540 ONLY)	1.5	5%	1/4W	R903	1-249-414-11	CARBON (KV-29FA340/29FA540 ONLY)	560	5%	1/4W
R708	1-247-807-31	CARBON	100	5%	1/4W	R904	1-249-432-11	CARBON (KV-29FA340/29FA540 ONLY)	18K	5%	1/4W
R709	1-247-807-31	CARBON	100	5%	1/4W	R905	1-249-421-11	CARBON (KV-29FA340/29FA540 ONLY)	2.2K	5%	1/4W
R710	1-247-807-31	CARBON	100	5%	1/4W						
R711	1-260-328-11	CARBON	1K	5%	1/2W	R906	1-249-432-11	CARBON (KV-29FA340/29FA540 ONLY)	18K	5%	1/4W
R712	1-260-328-11	CARBON	1K	5%	1/2W	R907	1-249-385-11	CARBON (KV-29FA340/29FA540 ONLY)	2.2	5%	1/4W
R713	1-260-328-11	CARBON	1K	5%	1/2W	R908	1-249-414-11	CARBON (KV-29FA340/29FA540 ONLY)	560	5%	1/4W
R714	1-260-087-11	CARBON	100	5%	1/2W						
R715	1-260-132-11	CARBON	560K	5%	1/2W	R909	1-260-316-51	CARBON (KV-29FA340/29FA540 ONLY)	100	5%	1/2W
R716	1-260-087-11	CARBON	100	5%	1/2W	R910	1-215-915-11	METAL OXIDE (KV-29FA340/29FA540 ONLY)	470	5%	3W
R717	1-216-375-00	METAL OXIDE (KV-29FA340/29FA540 ONLY)	3.3	5%	2W	R911	1-215-405-00	METAL (KV-29FA340/29FA540 ONLY)	220	1%	1/4W
R717	1-216-379-21	METAL OXIDE (KV-21FA340/21FA540 ONLY)	6.8	5%	2W						
R718	1-216-373-11	METAL OXIDE (KV-29FA340/29FA540 ONLY)	2.2	5%	2W	R912	1-249-407-11	CARBON (KV-29FA340/29FA540 ONLY)	150	5%	1/4W
R718	1-216-379-21	METAL OXIDE (KV-21FA340/21FA540 ONLY)	6.8	5%	2W	R913	1-215-391-00	METAL (KV-29FA340/29FA540 ONLY)	56	1%	1/4W
R719	1-215-888-00	METAL OXIDE (KV-29FA340/29FA540 ONLY)	220	5%	2W	R914	1-249-416-11	CARBON (KV-29FA340/29FA540 ONLY)	820	5%	1/4W
R720	1-216-825-11	METAL CHIP (KV-29FA340/29FA540 ONLY)	2.2K	5%	1/10W						
R721	1-216-825-11	METAL CHIP (KV-29FA340/29FA540 ONLY)	2.2K	5%	1/10W	R915	1-249-425-11	CARBON (KV-29FA340/29FA540 ONLY)	4.7K	5%	1/4W
R722	1-247-807-31	CARBON	100	5%	1/4W	R917	1-249-425-11	CARBON (KV-29FA340/29FA540 ONLY)	4.7K	5%	1/4W
R723	1-247-807-31	CARBON	100	5%	1/4W	R918	1-249-401-11	CARBON (KV-29FA340/29FA540 ONLY)	47	5%	1/4W
R724	1-247-807-31	CARBON	100	5%	1/4W						
R725	1-216-825-11	METAL CHIP (KV-29FA340/29FA540 ONLY)	2.2K	5%	1/10W	R919	1-249-401-11	CARBON (KV-29FA340/29FA540 ONLY)	47	5%	1/4W
R726	1-216-829-11	METAL CHIP (KV-29FA340/29FA540 ONLY)	4.7K	5%	1/10W	R921	1-249-429-11	CARBON (KV-29FA340/29FA540 ONLY)	10K	5%	1/4W
R727	1-216-825-11	METAL CHIP (KV-29FA340/29FA540 ONLY)	2.2K	5%	1/10W	R922	1-249-397-11	CARBON (KV-29FA340/29FA540 ONLY)	22	5%	1/4W
R732	1-216-833-11	METAL CHIP (KV-29FA340/29FA540 ONLY)	10K	5%	1/10W						
R733	1-216-833-11	METAL CHIP (KV-29FA340/29FA540 ONLY)	10K	5%	1/10W	R923	1-249-401-11	CARBON (KV-29FA340/29FA540 ONLY)	47	5%	1/4W
R734	1-216-809-11	METAL CHIP (KV-29FA340/29FA540 ONLY)	100	5%	1/10W	R930	1-216-864-11	SHORT CHIP (KV-29FA340/29FA540 ONLY)			
R901	1-249-405-11	CARBON (KV-29FA340/29FA540 ONLY)	100	5%	1/4W	R931	1-249-421-11	CARBON (KV-29FA340/29FA540 ONLY)	2.2K	5%	1/4W
R902	1-249-385-11	CARBON (KV-29FA340/29FA540 ONLY)	2.2	5%	1/4W	R932	1-218-851-11	METAL CHIP (KV-29FA340/29FA540 ONLY)	1.5K	0.50%	1/10W

NOTE: The components identified by shading and $\triangle$ mark are critical for safety. Replace only with part number specified.

CV **HC**

REF. NO.	PART NO.	DESCRIPTION	VALUES				REF. NO.	PART NO.	DESCRIPTION	VALUES			
R933	1-216-864-11	SHORT CHIP (KV-29FA340/29FA540 ONLY)					FB2003	1-410-397-21	FERRITE (KV-21FA340/21FA540 ONLY)	1.1 μ H			
R935	1-249-405-11	CARBON (KV-29FA340/29FA540 ONLY)	100	5%	1/4W		FB2004	1-410-397-21	FERRITE (KV-21FA340/21FA540 ONLY)	1.1 μ H			
R938	1-216-864-11	SHORT CHIP (KV-29FA340/29FA540 ONLY)											
VARIABLE RESISTOR													
$\triangle$ RV701	1-241-656-11	RES, ADJ, METAL FILM	110M										
RV702	1-238-019-11	RES, ADJ, METAL FILM (KV-29FA340/29FA540 ONLY)	47K										
IC													
							IC2001	8-742-212-20	HYB IC	SBX3081-71			
JACK													
							J2231	1-794-048-11	JACK, PIN	3P			
							J2402	1-750-264-11	JACK (KV-21FA340/21FA540 ONLY)				
TRANSISTOR													
							Q2001	8-729-922-37	TRANSISTOR	2SD2144S-UVW			
							Q2002	8-729-423-33	TRANSISTOR (KV-21FA340/21FA540 ONLY)	2SC3311A-QRSTA			
RESISTOR													
C2001	1-104-665-11	ELECT	100 μ F	20%	25V		R2001	1-249-429-11	CARBON	10K	5%	1/4W	
C2201	1-130-471-00	MYLAR	0.001 μ F	5%	50V		R2002	1-249-417-11	CARBON	1K	5%	1/4W	
C2234	1-126-960-11	ELECT	1 μ F	20%	50V		R2003	1-249-413-11	CARBON	470	5%	1/4W	
C2235	1-126-960-11	ELECT	1 μ F	20%	50V		R2004	1-249-417-11	CARBON	1K	5%	1/4W	
C2401	1-126-965-91	ELECT (KV-21FA340/21FA540 ONLY)	22 μ F	20%	50V		R2007	1-247-807-31	CARBON	100	5%	1/4W	
C2402	1-126-965-91	ELECT (KV-21FA340/21FA540 ONLY)	22 μ F	20%	50V		R2008	1-249-427-11	CARBON	6.8K	5%	1/4W	
							R2009	1-249-421-11	CARBON	2.2K	5%	1/4W	
CONNECTOR													
* CN2402	1-564-507-11	PLUG, CONNECTOR	4P				R2010	1-249-416-11	CARBON	820	5%	1/4W	
							R2011	1-249-415-11	CARBON	680	5%	1/4W	
							R2012	1-249-437-11	CARBON (KV-21FA340/21FA540 ONLY)	47K	5%	1/4W	
DIODE													
D2001	8-719-109-89	DIODE	RD5.6ESB2				R2201	1-249-419-11	CARBON	1.5K	5%	1/4W	
D2002	8-719-062-41	DIODE	LNK0210022G1				R2202	1-249-421-11	CARBON	2.2K	5%	1/4W	
D2003	8-719-109-89	DIODE	RD5.6ESB2				R2203	1-249-427-11	CARBON	6.8K	5%	1/4W	
D2004	8-719-109-89	DIODE	RD5.6ESB2				R2235	1-249-409-11	CARBON	220	5%	1/4W	
D2005	8-719-109-89	DIODE	RD5.6ESB2				R2236	1-249-441-11	CARBON	100K	5%	1/4W	
D2233	8-719-108-12	DIODE	RD9.1EW				R2237	1-249-409-11	CARBON	220	5%	1/4W	
D2235	8-719-108-12	DIODE	RD9.1EW				R2238	1-249-441-11	CARBON	100K	5%	1/4W	
D2236	8-719-108-12	DIODE	RD9.1EW				R2401	1-249-413-11	CARBON (KV-21FA340/21FA540 ONLY)	470	5%	1/4W	
							R2402	1-249-413-11	CARBON (KV-21FA340/21FA540 ONLY)	470	5%	1/4W	
FERRITE BEAD													
FB2001	1-410-397-21	FERRITE (KV-21FA340/21FA540 ONLY)	1.1 μ H				SWITCH						
FB2002	1-410-397-21	FERRITE (KV-21FA340/21FA540 ONLY)	1.1 μ H				S2001	1-692-431-21	SWITCH, TACTILE				
							S2002	1-692-431-21	SWITCH, TACTILE				
							S2003	1-692-431-21	SWITCH, TACTILE				

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REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
C2491	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C2544	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C2492	1-162-966-11	CERAMIC CHIP	0.0022μF	10%	50V	C2545	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C2495	1-126-964-11	ELECT	10μF	20%	50V	C2546	1-126-947-11	ELECT	47μF	20%	35V
C2496	1-104-665-11	ELECT	100μF	20%	25V	C2547	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C2498	1-126-947-11	ELECT	47μF	20%	35V	C2548	1-126-947-11	ELECT	47μF	20%	35V
C2499	1-126-947-11	ELECT	47μF	20%	35V	C2549	1-126-947-11	ELECT	47μF	20%	35V
C2500	1-162-966-11	CERAMIC CHIP	0.0022μF	10%	50V	C2550	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C2504	1-162-966-11	CERAMIC CHIP	0.0022μF	10%	50V	C2551	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C2505	1-126-933-11	ELECT	100μF	20%	16V	C2552	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C2506	1-126-933-11	ELECT	100μF	20%	16V	C2553	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C2507	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C2554	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C2508	1-125-891-11	CERAMIC CHIP	0.47μF	10%	10V	C2555	1-126-935-11	ELECT	470μF	20%	16V
C2509	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C2556	1-126-935-11	ELECT	470μF	20%	16V
C2511	1-137-194-81	FILM	0.47μF	5%	50V	C2557	1-126-935-11	ELECT	470μF	20%	16V
C2514	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C2558	1-126-935-11	ELECT	470μF	20%	16V
C2515	1-126-933-11	ELECT	100μF	20%	16V	C2559	1-126-935-11	ELECT	470μF	20%	16V
C2516	1-162-966-11	CERAMIC CHIP	0.0022μF	10%	50V	C2560	1-126-935-11	ELECT	470μF	20%	16V
C2517	1-162-966-11	CERAMIC CHIP	0.0022μF	10%	50V	C2561	1-126-935-11	ELECT	470μF	20%	16V
C2518	1-162-966-11	CERAMIC CHIP	0.0022μF	10%	50V	C2562	1-126-935-11	ELECT	470μF	20%	16V
C2519	1-162-966-11	CERAMIC CHIP	0.0022μF	10%	50V	C2563	1-126-935-11	ELECT	470μF	20%	16V
C2520	1-162-966-11	CERAMIC CHIP	0.0022μF	10%	50V	C2564	1-126-935-11	ELECT	470μF	20%	16V
C2521	1-162-966-11	CERAMIC CHIP	0.0022μF	10%	50V	C2565	1-126-935-11	ELECT	470μF	20%	16V
C2522	1-126-963-11	ELECT	4.7μF	20%	50V	C2566	1-126-935-11	ELECT	470μF	20%	16V
C2523	1-115-412-11	CERAMIC CHIP	680pF	5%	25V	C2633	1-126-940-11	ELECT	330μF	20%	25V
C2524	1-126-963-11	ELECT	4.7μF	20%	50V	C2634	1-115-416-11	CERAMIC CHIP	0.001μF	5%	25V
C2525	1-115-412-11	CERAMIC CHIP	680pF	5%	25V	C2635	1-104-665-11	ELECT	100μF	20%	25V
C2526	1-126-960-11	ELECT	1μF	20%	50V	C2650	1-126-940-11	ELECT	330μF	20%	25V
C2527	1-126-960-11	ELECT	1μF	20%	50V	C2651	1-115-416-11	CERAMIC CHIP	0.001μF	5%	25V
C2528	1-125-891-11	CERAMIC CHIP	0.47μF	10%	10V	C2652	1-126-947-11	ELECT	47μF	20%	35V
C2529	1-125-891-11	CERAMIC CHIP	0.47μF	10%	10V	C2653	1-126-963-11	ELECT	4.7μF	20%	50V
C2530	1-126-967-11	ELECT	47μF	20%	50V	C2654	1-126-965-91	ELECT	22μF	20%	50V
C2531	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C2655	1-126-963-11	ELECT	4.7μF	20%	50V
C2532	1-125-891-11	CERAMIC CHIP	0.47μF	10%	10V	C2656	1-126-965-91	ELECT	22μF	20%	50V
C2533	1-125-891-11	CERAMIC CHIP	0.47μF	10%	10V	C2657	1-126-963-11	ELECT	4.7μF	20%	50V
C2534	1-125-891-11	CERAMIC CHIP	0.47μF	10%	10V	C2658	1-126-965-91	ELECT	22μF	20%	50V
C2535	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C2659	1-126-935-11	ELECT	470μF	20%	16V
C2536	1-126-947-11	ELECT	47μF	20%	35V	C2660	1-126-768-11	ELECT	2200μF	20%	16V
C2537	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C2690	1-126-940-11	ELECT	330μF	20%	25V
C2538	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C2691	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C2539	1-126-947-11	ELECT	47μF	20%	35V	C2692	1-104-665-11	ELECT	100μF	20%	25V
C2540	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	CONNECTOR					
C2541	1-126-947-11	ELECT	47μF	20%	35V	* CN2400	1-564-507-11	PLUG, CONNECTOR	4P		
C2542	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	* CN2401	1-764-333-11	PIN, CONNECTOR(PCB)(V TYPE)	10P		
C2543	1-126-947-11	ELECT	47μF	20%	35V						

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REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
Q2410	8-729-120-28	TRANSISTOR	2SC1623-L5L6			R2434	1-216-845-11	METAL CHIP	100K	5%	1/10W
Q2411	8-729-120-28	TRANSISTOR	2SC1623-L5L6			R2440	1-216-837-11	METAL CHIP	22K	5%	1/10W
Q2412	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX			R2441	1-216-833-11	METAL CHIP	10K	5%	1/10W
Q2413	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX			R2442	1-216-821-11	METAL CHIP	1K	5%	1/10W
Q2414	8-729-422-27	TRANSISTOR	2SD601A-Q			R2443	1-216-841-11	METAL CHIP	47K	5%	1/10W
Q2415	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX			R2446	1-216-809-11	METAL CHIP	100	5%	1/10W
Q2416	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX			R2447	1-216-809-11	METAL CHIP	100	5%	1/10W
Q2417	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX			R2448	1-216-809-11	METAL CHIP	100	5%	1/10W
Q2418	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX			R2449	1-216-809-11	METAL CHIP	100	5%	1/10W
Q2419	8-729-422-27	TRANSISTOR	2SD601A-Q			R2450	1-216-809-11	METAL CHIP	100	5%	1/10W
Q2420	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX			R2451	1-216-809-11	METAL CHIP	100	5%	1/10W
Q2421	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX			R2452	1-216-805-11	METAL CHIP	47	5%	1/10W
Q2422	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX			R2457	1-216-864-11	SHORT CHIP			
Q2423	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX			R2458	1-216-861-11	METAL CHIP	2.2M	5%	1/10W
Q2424	8-729-422-27	TRANSISTOR	2SD601A-Q			R2461	1-216-839-11	METAL CHIP	33K	5%	1/10W
Q2425	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX			R2462	1-218-296-11	METAL CHIP	75K	5%	1/10W
Q2426	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX			R2463	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
RESISTOR						R2464	1-218-331-11	METAL CHIP	51K	5%	1/10W
R2401	1-216-809-11	METAL CHIP	100	5%	1/10W	R2465	1-216-824-11	METAL CHIP	1.8K	5%	1/10W
R2402	1-216-833-11	METAL CHIP	10K	5%	1/10W	R2466	1-218-866-11	METAL CHIP	6.2K	0.50%	1/10W
R2403	1-216-809-11	METAL CHIP	100	5%	1/10W	R2467	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2404	1-216-845-11	METAL CHIP	100K	5%	1/10W	R2468	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2405	1-216-809-11	METAL CHIP	100	5%	1/10W	R2469	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2406	1-216-809-11	METAL CHIP	100	5%	1/10W	R2470	1-216-840-11	METAL CHIP	39K	5%	1/10W
R2407	1-216-845-11	METAL CHIP	100K	5%	1/10W	R2471	1-216-824-11	METAL CHIP	1.8K	5%	1/10W
R2408	1-216-809-11	METAL CHIP	100	5%	1/10W	R2472	1-218-331-11	METAL CHIP	51K	5%	1/10W
R2409	1-216-845-11	METAL CHIP	100K	5%	1/10W	R2473	1-216-861-11	METAL CHIP	2.2M	5%	1/10W
R2410	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R2474	1-216-839-11	METAL CHIP	33K	5%	1/10W
R2411	1-216-821-11	METAL CHIP	1K	5%	1/10W	R2475	1-218-296-11	METAL CHIP	75K	5%	1/10W
R2412	1-216-864-11	SHORT CHIP				R2480	1-218-331-11	METAL CHIP	51K	5%	1/10W
R2413	1-216-864-11	SHORT CHIP				R2481	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2414	1-216-864-11	SHORT CHIP				R2482	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2415	1-216-809-11	METAL CHIP	100	5%	1/10W	R2484	1-216-828-11	METAL CHIP	3.9K	5%	1/10W
R2416	1-216-809-11	METAL CHIP	100	5%	1/10W	R2485	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2417	1-216-809-11	METAL CHIP	100	5%	1/10W	R2486	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2418	1-216-809-11	METAL CHIP	100	5%	1/10W	R2487	1-218-717-11	METAL CHIP	11K	0.50%	1/10W
R2419	1-216-845-11	METAL CHIP	100K	5%	1/10W	R2488	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2420	1-216-809-11	METAL CHIP	100	5%	1/10W	R2489	1-216-835-11	METAL CHIP	15K	5%	1/10W
R2421	1-216-845-11	METAL CHIP	100K	5%	1/10W	R2490	1-216-809-11	METAL CHIP	100	5%	1/10W
R2422	1-216-845-11	METAL CHIP	100K	5%	1/10W	R2491	1-216-845-11	METAL CHIP	100K	5%	1/10W
R2423	1-216-845-11	METAL CHIP	100K	5%	1/10W	R2492	1-216-809-11	METAL CHIP	100	5%	1/10W
R2424	1-216-845-11	METAL CHIP	100K	5%	1/10W	R2493	1-216-845-11	METAL CHIP	100K	5%	1/10W
R2432	1-216-864-11	SHORT CHIP				R2495	1-218-292-11	METAL CHIP	20K	5%	1/10W

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REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
R2496	1-216-847-11	METAL CHIP	150K	5%	1/10W	R2560	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2497	1-216-823-11	METAL CHIP	1.5K	5%	1/10W	R2561	1-216-853-11	METAL CHIP	470K	5%	1/10W
R2499	1-216-845-11	METAL CHIP	100K	5%	1/10W	R2562	1-216-850-11	METAL CHIP	270K	5%	1/10W
R2500	1-216-809-11	METAL CHIP	100	5%	1/10W	R2563	1-216-809-11	METAL CHIP	100	5%	1/10W
R2511	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R2564	1-216-837-11	METAL CHIP	22K	5%	1/10W
R2512	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R2565	1-216-853-11	METAL CHIP	470K	5%	1/10W
R2513	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R2566	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2514	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R2567	1-216-850-11	METAL CHIP	270K	5%	1/10W
R2517	1-216-809-11	METAL CHIP	100	5%	1/10W	R2568	1-216-837-11	METAL CHIP	22K	5%	1/10W
R2518	1-216-809-11	METAL CHIP	100	5%	1/10W	R2569	1-216-809-11	METAL CHIP	100	5%	1/10W
R2521	1-216-845-11	METAL CHIP	100K	5%	1/10W	R2572	1-216-814-11	METAL CHIP	270	5%	1/10W
R2522	1-216-845-11	METAL CHIP	100K	5%	1/10W	R2573	1-216-814-11	METAL CHIP	270	5%	1/10W
R2523	1-216-809-11	METAL CHIP	100	5%	1/10W	R2576	1-216-814-11	METAL CHIP	270	5%	1/10W
R2525	1-216-809-11	METAL CHIP	100	5%	1/10W	R2577	1-216-814-11	METAL CHIP	270	5%	1/10W
R2528	1-216-809-11	METAL CHIP	100	5%	1/10W	R2578	1-216-814-11	METAL CHIP	270	5%	1/10W
R2531	1-216-809-11	METAL CHIP	100	5%	1/10W	R2581	1-216-814-11	METAL CHIP	270	5%	1/10W
R2532	1-216-853-11	METAL CHIP	470K	5%	1/10W	R2582	1-216-857-11	METAL CHIP	1M	5%	1/10W
R2533	1-216-821-11	METAL CHIP	1K	5%	1/10W	R2584	1-216-813-11	METAL CHIP	220	5%	1/10W
R2534	1-216-864-11	SHORT CHIP				R2586	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R2535	1-216-864-11	SHORT CHIP				R2587	1-216-845-11	METAL CHIP	100K	5%	1/10W
R2536	1-216-845-11	METAL CHIP	100K	5%	1/10W	R2589	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R2537	1-216-845-11	METAL CHIP	100K	5%	1/10W	R2590	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R2538	1-216-837-11	METAL CHIP	22K	5%	1/10W	R2591	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2539	1-216-850-11	METAL CHIP	270K	5%	1/10W	R2592	1-216-864-11	SHORT CHIP			
R2540	1-216-809-11	METAL CHIP	100	5%	1/10W	R2593	1-216-789-11	METAL CHIP	2.2	5%	1/10W
R2541	1-216-809-11	METAL CHIP	100	5%	1/10W	R2594	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2542	1-216-837-11	METAL CHIP	22K	5%	1/10W	R2595	1-216-864-11	SHORT CHIP			
R2543	1-216-850-11	METAL CHIP	270K	5%	1/10W	R2597	1-216-789-11	METAL CHIP	2.2	5%	1/10W
R2544	1-216-821-11	METAL CHIP	1K	5%	1/10W	R2598	1-216-789-11	METAL CHIP	2.2	5%	1/10W
R2545	1-216-853-11	METAL CHIP	470K	5%	1/10W	R2601	1-216-841-11	METAL CHIP	47K	5%	1/10W
R2546	1-216-845-11	METAL CHIP	100K	5%	1/10W	R2602	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2547	1-216-845-11	METAL CHIP	100K	5%	1/10W	R2604	1-216-841-11	METAL CHIP	47K	5%	1/10W
R2548	1-216-837-11	METAL CHIP	22K	5%	1/10W	R2605	1-216-841-11	METAL CHIP	47K	5%	1/10W
R2549	1-216-809-11	METAL CHIP	100	5%	1/10W	R2606	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2550	1-216-850-11	METAL CHIP	270K	5%	1/10W	R2607	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2551	1-216-853-11	METAL CHIP	470K	5%	1/10W	R2608	1-216-837-11	METAL CHIP	22K	5%	1/10W
R2552	1-216-821-11	METAL CHIP	1K	5%	1/10W	R2609	1-216-845-11	METAL CHIP	100K	5%	1/10W
R2553	1-216-853-11	METAL CHIP	470K	5%	1/10W	R2610	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2554	1-216-821-11	METAL CHIP	1K	5%	1/10W	R2611	1-216-864-11	SHORT CHIP			
R2555	1-216-850-11	METAL CHIP	270K	5%	1/10W	R2612	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2556	1-216-809-11	METAL CHIP	100	5%	1/10W	R2613	1-216-841-11	METAL CHIP	47K	5%	1/10W
R2557	1-216-837-11	METAL CHIP	22K	5%	1/10W	R2614	1-216-841-11	METAL CHIP	47K	5%	1/10W
R2558	1-216-845-11	METAL CHIP	100K	5%	1/10W	R2615	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2559	1-216-845-11	METAL CHIP	100K	5%	1/10W	R2616	1-216-864-11	SHORT CHIP			



REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
R2617	1-216-837-11	METAL CHIP	22K	5%	1/10W	R2678	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2618	1-216-845-11	METAL CHIP	100K	5%	1/10W	R2683	1-216-864-11	SHORT CHIP			
R2619	1-216-833-11	METAL CHIP	10K	5%	1/10W	R2690	1-216-399-00	METAL OXIDE	6.8	5%	3W
R2620	1-216-841-11	METAL CHIP	47K	5%	1/10W						
R2621	1-216-833-11	METAL CHIP	10K	5%	1/10W						
R2622	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	X2401	1-781-465-21	VIBRATOR, CRYSTAL			
R2623	1-216-837-11	METAL CHIP	22K	5%	1/10W						
R2624	1-216-841-11	METAL CHIP	47K	5%	1/10W						
R2633	1-216-399-00	METAL OXIDE	6.8	5%	3W						
R2634	1-216-837-11	METAL CHIP	22K	5%	1/10W						
R2635	1-216-837-11	METAL CHIP	22K	5%	1/10W						
R2636	1-216-837-11	METAL CHIP	22K	5%	1/10W						
R2637	1-216-837-11	METAL CHIP	22K	5%	1/10W						
R2638	1-216-841-11	METAL CHIP	47K	5%	1/10W						
R2639	1-216-809-11	METAL CHIP	100	5%	1/10W						
R2640	1-216-864-11	SHORT CHIP									
R2641	1-216-837-11	METAL CHIP	22K	5%	1/10W						
R2642	1-216-837-11	METAL CHIP	22K	5%	1/10W						
R2647	1-216-837-11	METAL CHIP	22K	5%	1/10W						
R2648	1-216-837-11	METAL CHIP	22K	5%	1/10W						
R2649	1-216-837-11	METAL CHIP	22K	5%	1/10W						
R2651	1-216-399-00	METAL OXIDE	6.8	5%	3W						
R2652	1-216-837-11	METAL CHIP	22K	5%	1/10W						
R2653	1-216-837-11	METAL CHIP	22K	5%	1/10W						
R2654	1-216-837-11	METAL CHIP	22K	5%	1/10W						
R2655	1-216-841-11	METAL CHIP	47K	5%	1/10W						
R2656	1-216-809-11	METAL CHIP	100	5%	1/10W						
R2657	1-216-864-11	SHORT CHIP									
R2658	1-216-837-11	METAL CHIP	22K	5%	1/10W						
R2659	1-216-837-11	METAL CHIP	22K	5%	1/10W						
R2660	1-216-837-11	METAL CHIP	22K	5%	1/10W						
R2661	1-216-837-11	METAL CHIP	22K	5%	1/10W						
R2662	1-216-837-11	METAL CHIP	22K	5%	1/10W						
R2663	1-216-837-11	METAL CHIP	22K	5%	1/10W						
R2664	1-216-837-11	METAL CHIP	22K	5%	1/10W						
R2665	1-216-837-11	METAL CHIP	22K	5%	1/10W						
R2666	1-216-841-11	METAL CHIP	47K	5%	1/10W						
R2667	1-216-809-11	METAL CHIP	100	5%	1/10W						
R2668	1-216-864-11	SHORT CHIP									
R2669	1-216-837-11	METAL CHIP	22K	5%	1/10W						
R2670	1-216-837-11	METAL CHIP	22K	5%	1/10W						
R2671	1-216-837-11	METAL CHIP	22K	5%	1/10W						
R2672	1-216-837-11	METAL CHIP	22K	5%	1/10W						
R2677	1-216-821-11	METAL CHIP	1K	5%	1/10W						

K2

REF. NO.	PART NO.	DESCRIPTION	VALUES	REF. NO.	PART NO.	DESCRIPTION	VALUES
<u>CONNECTOR</u>				Q3409	8-729-119-76	TRANSISTOR	2SA1175-HFE
* CN3401	1-564-507-11	PLUG, CONNECTOR	4P	Q3410	8-729-119-76	TRANSISTOR	2SA1175-HFE
* CN3402	1-564-506-11	PLUG, CONNECTOR	3P	Q3411	8-729-119-76	TRANSISTOR	2SA1175-HFE
* CN3405	1-764-333-11	PIN, CONNECTOR(PCB)(V TYPE)	10P	Q3412	8-729-119-76	TRANSISTOR	2SA1175-HFE
				Q3413	8-729-423-33	TRANSISTOR	2SC3311A-QRSTA
<u>DIODE</u>				Q3414	8-729-119-76	TRANSISTOR	2SA1175-HFE
D3401	8-719-991-33	DIODE	1SS133T-77	Q3415	8-729-119-76	TRANSISTOR	2SA1175-HFE
D3402	8-719-991-33	DIODE	1SS133T-77	Q3416	8-729-423-33	TRANSISTOR	2SC3311A-QRSTA
D3403	8-719-921-63	DIODE	MTZJ-7.5B	Q3417	8-729-423-33	TRANSISTOR	2SC3311A-QRSTA
D3404	8-719-923-60	DIODE	MTZJ-T-77-9.1A	<u>RESISTOR</u>			
D3405	8-719-923-60	DIODE	MTZJ-T-77-9.1A	R3401	1-249-429-11	CARBON	10K 5% 1/4W
D3406	8-719-923-60	DIODE	MTZJ-T-77-9.1A	R3402	1-249-433-11	CARBON	22K 5% 1/4W
D3407	8-719-923-60	DIODE	MTZJ-T-77-9.1A	R3403	1-249-437-11	CARBON	47K 5% 1/4W
D3408	8-719-923-60	DIODE	MTZJ-T-77-9.1A	R3404	1-249-417-11	CARBON	1K 5% 1/4W
D3409	8-719-923-60	DIODE	MTZJ-T-77-9.1A	R3405	1-249-437-11	CARBON	47K 5% 1/4W
D3410	8-719-923-60	DIODE	MTZJ-T-77-9.1A	R3407	1-249-413-11	CARBON	470 5% 1/4W
D3411	8-719-923-60	DIODE	MTZJ-T-77-9.1A	R3414	1-247-807-31	CARBON	100 5% 1/4W
D3412	8-719-921-63	DIODE	MTZJ-7.5B	R3415	1-249-385-11	CARBON	2.2 5% 1/4W
D3413	8-719-109-89	DIODE	RD5.6ESB2	R3416	1-249-385-11	CARBON	2.2 5% 1/4W
D3414	8-719-109-89	DIODE	RD5.6ESB2	R3418	1-249-441-11	CARBON	100K 5% 1/4W
D3415	8-719-109-89	DIODE	RD5.6ESB2	R3419	1-249-429-11	CARBON	10K 5% 1/4W
D3416	8-719-109-89	DIODE	RD5.6ESB2	R3420	1-249-437-11	CARBON	47K 5% 1/4W
D3417	8-719-991-33	DIODE	1SS133T-77	R3421	1-249-437-11	CARBON	47K 5% 1/4W
<u>IC</u>				R3436	1-249-441-11	CARBON	100K 5% 1/4W
IC3401	6-705-054-01	IC	TDA8947J/N3	R3437	1-249-429-11	CARBON	10K 5% 1/4W
IC3402	6-705-054-01	IC	TDA8947J/N3	R3438	1-249-441-11	CARBON	100K 5% 1/4W
IC3403	8-759-634-51	IC	M5218AP	R3439	1-249-429-11	CARBON	10K 5% 1/4W
<u>COIL</u>				R3440	1-249-429-11	CARBON	10K 5% 1/4W
L3401	1-412-549-11	INDUCTOR	1MH	R3441	1-249-441-11	CARBON	100K 5% 1/4W
<u>IC LINK</u>				R3443	1-249-433-11	CARBON	22K 5% 1/4W
PS3401	1-576-337-21	IC LINK	2.7A 50V	R3444	1-249-429-11	CARBON	10K 5% 1/4W
PS3402	1-576-337-21	IC LINK	2.7A 50V	R3445	1-249-437-11	CARBON	47K 5% 1/4W
<u>TRANSISTOR</u>				R3446	1-249-417-11	CARBON	1K 5% 1/4W
Q3402	8-729-423-33	TRANSISTOR	2SC3311A-QRSTA	R3448	1-249-437-11	CARBON	47K 5% 1/4W
Q3403	8-729-423-33	TRANSISTOR	2SC3311A-QRSTA	R3449	1-249-429-11	CARBON	10K 5% 1/4W
Q3404	8-729-423-33	TRANSISTOR	2SC3311A-QRSTA	R3450	1-249-441-11	CARBON	100K 5% 1/4W
Q3405	8-729-423-33	TRANSISTOR	2SC3311A-QRSTA	R3451	1-249-425-11	CARBON	4.7K 5% 1/4W
Q3406	8-729-119-76	TRANSISTOR	2SA1175-HFE	R3452	1-249-425-11	CARBON	4.7K 5% 1/4W
Q3407	8-729-119-76	TRANSISTOR	2SA1175-HFE	R3453	1-249-413-11	CARBON	470 5% 1/4W
Q3408	8-729-423-33	TRANSISTOR	2SC3311A-QRSTA	R3454	1-249-436-11	CARBON	39K 5% 1/4W
				R3455	1-249-436-11	CARBON	39K 5% 1/4W
				R3456	1-249-433-11	CARBON	22K 5% 1/4W
				R3457	1-249-433-11	CARBON	22K 5% 1/4W



REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
R3458	1-249-433-11	CARBON	22K	5%	1/4W	C011	1-162-964-11	CERAMIC CHIP	0.001μF	10%	50V
R3459	1-249-429-11	CARBON	10K	5%	1/4W	C012	1-162-968-11	CERAMIC CHIP	0.0047μF	10%	50V
R3460	1-249-429-11	CARBON	10K	5%	1/4W	C014	1-127-573-11	CERAMIC CHIP	1μF	10%	16V
R3461	1-247-807-31	CARBON	100	5%	1/4W	C015	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
R3462	1-249-429-11	CARBON	10K	5%	1/4W	C019	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
R3465	1-249-436-11	CARBON	39K	5%	1/4W	C021	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
R3466	1-249-429-11	CARBON	10K	5%	1/4W	C022	1-126-964-11	ELECT	10μF	20%	50V
R3467	1-249-429-11	CARBON	10K	5%	1/4W	C023	1-126-935-11	ELECT	470μF	20%	16V
R3468	1-249-433-11	CARBON	22K	5%	1/4W	C033	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
R3469	1-249-433-11	CARBON	22K	5%	1/4W	C041	1-126-964-11	ELECT	10μF	20%	50V
R3470	1-249-433-11	CARBON	22K	5%	1/4W	C047	1-164-315-11	CERAMIC CHIP	470pF	5%	50V
R3471	1-249-433-11	CARBON	22K	5%	1/4W	C048	1-104-665-11	ELECT	100μF	20%	25V
R3472	1-249-437-11	CARBON	47K	5%	1/4W	C064	1-165-176-11	CERAMIC CHIP	0.047μF	10%	16V
R3473	1-247-807-31	CARBON	100	5%	1/4W	C090	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
R3475	1-249-433-11	CARBON	22K	5%	1/4W	C091	1-126-947-11	ELECT	47μF	20%	35V
R3476	1-249-433-11	CARBON	22K	5%	1/4W	C092	1-126-947-11	ELECT	47μF	20%	35V
R3477	1-249-433-11	CARBON	22K	5%	1/4W	C094	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
R3478	1-249-433-11	CARBON	22K	5%	1/4W	C095	1-126-947-11	ELECT	47μF	20%	35V
R3479	1-249-433-11	CARBON	22K	5%	1/4W	C096	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
R3480	1-249-433-11	CARBON	22K	5%	1/4W	C097	1-126-947-11	ELECT	47μF	20%	35V
R3481	1-249-433-11	CARBON	22K	5%	1/4W	C098	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
R3482	1-249-437-11	CARBON	47K	5%	1/4W	C099	1-126-947-11	ELECT	47μF	20%	35V
R3483	1-247-807-31	CARBON	100	5%	1/4W	C100	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
R3485	1-249-433-11	CARBON	22K	5%	1/4W	C101	1-126-940-11	ELECT	330μF	20%	25V
R3486	1-249-433-11	CARBON	22K	5%	1/4W	C102	1-115-416-11	CERAMIC CHIP	0.001μF	5%	25V
R3487	1-249-433-11	CARBON	22K	5%	1/4W	C103	1-126-947-11	ELECT	47μF	20%	35V
R3488	1-249-433-11	CARBON	22K	5%	1/4W	C115	1-164-739-11	CERAMIC CHIP	560pF	5%	50V
R3489	1-249-433-11	CARBON	22K	5%	1/4W	C116	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
						C304	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
						C305	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
						C306	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
						C313	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
						C322	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
						C325	1-162-967-11	CERAMIC CHIP	0.0033μF	10%	50V
						C326	1-164-505-11	CERAMIC CHIP	2.2μF		16V
						C330	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
						C337	1-162-919-11	CERAMIC CHIP	22pF	5%	50V
						C351	1-164-315-11	CERAMIC CHIP	470pF	5%	50V
						C370	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
						C390	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
						C542	1-162-966-11	CERAMIC CHIP	0.0022μF	10%	50V
						C551	1-127-573-11	CERAMIC CHIP	1μF	10%	16V
						C552	1-124-779-00	ELECT CHIP	10μF	20%	16V
						C559	1-216-864-11	SHORT CHIP			



**A-1176-830-A MT (VAR) BOARD, MOUNTED
(KV-21FA340/21FA540 ONLY)**
**A-1176-831-A MT (VAR) BOARD, MOUNTED
(KV-29FA340/29FA540 ONLY)**

CAPACITOR

C003	1-162-919-11	CERAMIC CHIP	22pF	5%	50V
C004	1-162-923-11	CERAMIC CHIP	47pF	5%	50V
C005	1-162-966-11	CERAMIC CHIP	0.0022μF	10%	50V
C006	1-126-767-11	ELECT	1000μF	20%	16V
C007	1-164-315-11	CERAMIC CHIP	470pF	5%	50V
C008	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C009	1-164-230-11	CERAMIC CHIP	220pF	5%	50V
C010	1-127-573-11	CERAMIC CHIP	1μF	10%	16V

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REF. NO.	PART NO.	DESCRIPTION	VALUES	REF. NO.	PART NO.	DESCRIPTION	VALUES
JR3503	1-216-864-11	SHORT CHIP		RESISTOR			
JR3504	1-216-864-11	SHORT CHIP		R002	1-216-864-11	SHORT CHIP	
JR3505	1-216-864-11	SHORT CHIP		R003	1-216-821-11	METAL CHIP	1K 5% 1/10W
JR3506	1-216-864-11	SHORT CHIP		R004	1-216-817-11	METAL CHIP	470 5% 1/10W
COIL				R005	1-500-848-21	FERRITE	0μH
L002	1-234-126-21	FERRITE	0μH	R006	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
L005	1-234-126-21	FERRITE	0μH	R007	1-500-848-21	FERRITE	0μH
L006	1-414-273-11	INDUCTOR	100μH	R008	1-216-864-11	SHORT CHIP	
L007	1-414-267-21	INDUCTOR	10μH	R009	1-216-864-11	SHORT CHIP	
L011	1-234-126-21	FERRITE	0μH	R015	1-216-833-11	METAL CHIP	10K 5% 1/10W
L611	1-469-561-21	INDUCTOR	100μH	R027	1-218-887-11	METAL CHIP	47K 0.50% 1/10W
L612	1-469-561-21	INDUCTOR	100μH	R028	1-216-813-11	METAL CHIP	220 5% 1/10W
L613	1-469-561-21	INDUCTOR	100μH	R030	1-216-813-11	METAL CHIP	220 5% 1/10W
L3003	1-234-126-21	FERRITE	0μH	R031	1-216-813-11	METAL CHIP	220 5% 1/10W
L3004	1-234-126-21	FERRITE	0μH	R032	1-216-813-11	METAL CHIP	220 5% 1/10W
L3609	1-414-267-21	INDUCTOR	10μH	R034	1-216-864-11	SHORT CHIP	
TRANSISTOR				R035	1-216-809-11	METAL CHIP	100 5% 1/10W
Q002	8-729-120-28	TRANSISTOR	2SC1623-L5L6	R037	1-216-833-11	METAL CHIP	10K 5% 1/10W
Q004	8-729-120-28	TRANSISTOR	2SC1623-L5L6	R038	1-216-813-11	METAL CHIP	220 5% 1/10W
Q008	8-729-120-28	TRANSISTOR	2SC1623-L5L6	R039	1-216-813-11	METAL CHIP	220 5% 1/10W
Q301	8-729-600-22	TRANSISTOR	2SA1235-F	R040	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
Q303	8-729-600-22	TRANSISTOR	2SA1235-F	R041	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
Q305	8-729-600-22	TRANSISTOR	2SA1235-F	R042	1-216-813-11	METAL CHIP	220 5% 1/10W
Q306	8-729-120-28	TRANSISTOR	2SC1623-L5L6 (KV-29FA340/29FA540 ONLY)	R043	1-216-813-11	METAL CHIP	220 5% 1/10W
Q307	8-729-600-22	TRANSISTOR	2SA1235-F (KV-29FA340/29FA540 ONLY)	R044	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
Q316	8-729-120-28	TRANSISTOR	2SC1623-L5L6	R045	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
Q390	8-729-120-28	TRANSISTOR	2SC1623-L5L6	R047	1-216-813-11	METAL CHIP	220 5% 1/10W
Q391	8-729-120-28	TRANSISTOR	2SC1623-L5L6	R048	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
Q503	8-729-120-28	TRANSISTOR	2SC1623-L5L6	R049	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
Q504	8-729-120-28	TRANSISTOR	2SC1623-L5L6	R050	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
Q505	8-729-120-28	TRANSISTOR	2SC1623-L5L6	R053	1-216-837-11	METAL CHIP	22K 5% 1/10W
Q515	8-729-120-28	TRANSISTOR	2SC1623-L5L6	R054	1-216-837-11	METAL CHIP	22K 5% 1/10W
Q519	8-729-120-28	TRANSISTOR	2SC1623-L5L6	R059	1-216-821-11	METAL CHIP	1K 5% 1/10W
Q533	8-729-600-22	TRANSISTOR	2SA1235-F	R060	1-216-813-11	METAL CHIP	220 5% 1/10W
Q860	8-729-120-28	TRANSISTOR	2SC1623-L5L6	R061	1-216-833-11	METAL CHIP	10K 5% 1/10W
Q3005	8-729-600-22	TRANSISTOR	2SA1235-F	R062	1-216-817-11	METAL CHIP	470 5% 1/10W
Q3300	8-729-120-28	TRANSISTOR	2SC1623-L5L6 (KV-29FA340/29FA540 ONLY)	R063	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
Q3304	8-729-600-22	TRANSISTOR	2SA1235-F	R070	1-216-813-11	METAL CHIP	220 5% 1/10W
Q3502	8-729-120-28	TRANSISTOR	2SC1623-L5L6	R076	1-216-809-11	METAL CHIP	100 5% 1/10W
Q6000	8-729-120-28	TRANSISTOR	2SC1623-L5L6	R080	1-216-833-11	METAL CHIP	10K 5% 1/10W
				R081	1-216-841-11	METAL CHIP	47K 5% 1/10W
				R082	1-216-857-11	METAL CHIP	1M 5% 1/10W
				R083	1-216-847-11	METAL CHIP	150K 5% 1/10W



REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
R084	1-216-819-11	METAL CHIP	680	5%	1/10W	R343	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R090	1-216-837-11	METAL CHIP	22K	5%	1/10W			(KV-29FA340/29FA540 ONLY)			
R091	1-216-841-11	METAL CHIP	47K	5%	1/10W	R344	1-216-821-11	METAL CHIP	1K	5%	1/10W
R092	1-216-825-11	METAL CHIP	2.2K	5%	1/10W			(KV-29FA340/29FA540 ONLY)			
R093	1-216-841-11	METAL CHIP	47K	5%	1/10W	R345	1-216-864-11	SHORT CHIP			
								(KV-29FA340/29FA540 ONLY)			
R094	1-216-864-11	SHORT CHIP				R351	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R095	1-216-864-11	SHORT CHIP				R352	1-216-853-11	METAL CHIP	470K	5%	1/10W
R096	1-216-813-11	METAL CHIP	220	5%	1/10W	R354	1-216-813-11	METAL CHIP	220	5%	1/10W
R097	1-216-813-11	METAL CHIP	220	5%	1/10W	R355	1-216-813-11	METAL CHIP	220	5%	1/10W
R100	1-216-849-11	METAL CHIP	220K	5%	1/10W	R363	1-216-813-11	METAL CHIP	220	5%	1/10W
R101	1-216-829-11	METAL CHIP	4.7K	5%	1/10W						
R110	1-216-813-11	METAL CHIP	220	5%	1/10W	R364	1-216-813-11	METAL CHIP	220	5%	1/10W
R112	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R365	1-216-864-11	SHORT CHIP			
R115	1-216-817-11	METAL CHIP	470	5%	1/10W	R366	1-216-813-11	METAL CHIP	220	5%	1/10W
R116	1-216-853-11	METAL CHIP	470K	5%	1/10W	R370	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
						R371	1-216-849-11	METAL CHIP	220K	5%	1/10W
R131	1-216-813-11	METAL CHIP	220	5%	1/10W						
R201	1-216-813-11	METAL CHIP	220	5%	1/10W	R372	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R203	1-216-813-11	METAL CHIP	220	5%	1/10W	R379	1-216-813-11	METAL CHIP	220	5%	1/10W
R213	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R382	1-216-863-11	METAL CHIP	3.3M	5%	1/10W
R301	1-216-864-11	SHORT CHIP				R383	1-216-813-11	METAL CHIP	220	5%	1/10W
						R384	1-216-813-11	METAL CHIP	220	5%	1/10W
R304	1-216-813-11	METAL CHIP	220	5%	1/10W						
R305	1-216-813-11	METAL CHIP	220	5%	1/10W	R385	1-216-813-11	METAL CHIP	220	5%	1/10W
R307	1-216-864-11	SHORT CHIP				R511	1-216-864-11	SHORT CHIP			
R309	1-216-833-11	METAL CHIP	10K	5%	1/10W	R513	1-216-845-11	METAL CHIP	100K	5%	1/10W
		(KV-29FA340/29FA540 ONLY)				R515	1-216-845-11	METAL CHIP	100K	5%	1/10W
						R526	1-216-837-11	METAL CHIP	22K	5%	1/10W
R310	1-216-821-11	METAL CHIP	1K	5%	1/10W						
		(KV-29FA340/29FA540 ONLY)				R540	1-216-833-11	METAL CHIP	10K	5%	1/10W
R311	1-216-813-11	METAL CHIP	220	5%	1/10W	R547	1-218-869-11	METAL CHIP	8.2K	0.50%	1/10W
R312	1-218-867-11	METAL CHIP	6.8K	0.50%	1/10W			(KV-21FA340/21FA540 ONLY)			
R313	1-216-864-11	SHORT CHIP				R547	1-218-891-11	METAL CHIP	68K	0.5%	1/10W
								(KV-29FA340/29FA540 ONLY)			
R314	1-216-833-11	METAL CHIP	10K	5%	1/10W						
R317	1-216-864-11	SHORT CHIP				R556	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R318	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R557	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R319	1-216-813-11	METAL CHIP	220	5%	1/10W	R601	1-215-905-11	METAL OXIDE	10	5%	3W
R320	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R634	1-215-905-11	METAL OXIDE	10	5%	3W
						R701	1-218-724-11	METAL CHIP	22K	0.50%	1/10W
R322	1-216-864-11	SHORT CHIP									
R324	1-216-821-11	METAL CHIP	1K	5%	1/10W	R702	1-218-716-11	METAL CHIP	10K	0.50%	1/10W
R326	1-500-848-21	FERRITE	0μH			R703	1-218-724-11	METAL CHIP	22K	0.50%	1/10W
R332	1-216-813-11	METAL CHIP	220	5%	1/10W	R704	1-218-714-11	METAL CHIP	8.2K	0.50%	1/10W
R337	1-216-801-11	METAL CHIP	22	5%	1/10W	R851	1-216-821-11	METAL CHIP	1K	5%	1/10W
						R852	1-218-855-11	METAL CHIP	2.2K	0.50%	1/10W
R341	1-216-845-11	METAL CHIP	100K	5%	1/10W			(KV-21FA340/21FA540 ONLY)			
		(KV-29FA340/29FA540 ONLY)									
R342	1-216-847-11	METAL CHIP	1K	0.5%	1/10W	R852	1-218-887-11	METAL CHIP	47K	0.5%	1/10W
		(KV-29FA340/29FA540 ONLY)						(KV-29FA340/29FA540 ONLY)			



REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
R860	1-216-833-11	METAL CHIP	10K	5%	1/10W	R3532	1-216-864-11	SHORT CHIP			
R861	1-216-833-11	METAL CHIP	10K	5%	1/10W	R3533	1-218-869-11	METAL CHIP	8.2K	0.5%	1/10W
R862	1-216-813-11	METAL CHIP	220	5%	1/10W			(KV-29FA340/29FA540 ONLY)			
R900	1-216-851-11	METAL CHIP	330K	5%	1/10W	R3534	1-218-720-11	METAL CHIP	15K	0.50%	1/10W
R3057	1-216-821-11	METAL CHIP	1K	5%	1/10W	R3535	1-218-865-11	METAL CHIP	5.6K	0.50%	1/10W
R3058	1-216-833-11	METAL CHIP	10K	5%	1/10W	R3536	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R3085	1-216-864-11	SHORT CHIP						(KV-29FA340/29FA540 ONLY)			
R3086	1-216-821-11	METAL CHIP	1K	5%	1/10W	R3537	1-216-845-11	METAL CHIP	100K	5%	1/10W
R3087	1-216-809-11	METAL CHIP	100	5%	1/10W			(KV-21FA340/21FA540 ONLY)			
R3115	1-216-864-11	SHORT CHIP				R3537	1-216-855-11	METAL CHIP	680K	5%	1/10W
								(KV-29FA340/29FA540 ONLY)			
R3303	1-216-863-11	METAL CHIP	3.3M	5%	1/10W	R3539	1-216-864-11	SHORT CHIP			
R3305	1-216-864-11	SHORT CHIP				R3541	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R3308	1-216-809-11	METAL CHIP	100	5%	1/10W	R3542	1-216-833-11	METAL CHIP	10K	5%	1/10W
		(KV-29FA340/29FA540 ONLY)				R3543	1-216-815-11	METAL CHIP	330	5%	1/10W
R3315	1-216-813-11	METAL CHIP	220	5%	1/10W	R3550	1-216-817-11	METAL CHIP	470	5%	1/10W
R3316	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R3551	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R3317	1-216-813-11	METAL CHIP	220	5%	1/10W	R3553	1-216-864-11	SHORT CHIP			
R3328	1-216-864-11	SHORT CHIP				R3554	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R3390	1-216-864-11	SHORT CHIP				R3555	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3391	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R3559	1-216-837-11	METAL CHIP	22K	5%	1/10W
R3392	1-216-818-11	METAL CHIP	560	5%	1/10W	R3580	1-216-837-11	METAL CHIP	22K	5%	1/10W
R3393	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R3599	1-216-837-11	METAL CHIP	22K	5%	1/10W
R3394	1-216-833-11	METAL CHIP	10K	5%	1/10W	R3910	1-216-822-11	METAL CHIP	1.2K	5%	1/10W
R3395	1-216-864-11	SHORT CHIP				R3990	1-216-809-11	METAL CHIP	100	5%	1/10W
R3396	1-216-864-11	SHORT CHIP				R6001	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3502	1-216-833-11	METAL CHIP	10K	5%	1/10W	R6002	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3504	1-216-864-11	SHORT CHIP				R6003	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3517	1-216-864-11	SHORT CHIP				R6004	1-216-821-11	METAL CHIP	1K	5%	1/10W
		(KV-21FA340/21FA540 ONLY)									
R3517	1-218-873-11	METAL CHIP	12K	0.5%	1/10W						
		(KV-29FA340/29FA540 ONLY)									
R3518	1-216-833-11	METAL CHIP	10K	5%	1/10W						
R3519	1-216-833-11	METAL CHIP	10K	5%	1/10W						
R3524	1-218-867-11	METAL CHIP	6.8K	0.50%	1/10W						
R3525	1-216-821-11	METAL CHIP	1K	5%	1/10W						
R3527	1-216-825-11	METAL CHIP	2.2K	5%	1/10W						
R3528	1-216-833-11	METAL CHIP	10K	5%	1/10W						
R3529	1-216-833-11	METAL CHIP	10K	5%	1/10W						
R3530	1-218-865-11	METAL CHIP	5.6K	0.5%	1/10W						
		(KV-29FA340/29FA540 ONLY)									
R3531	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V						
		(KV-21FA340/21FA540 ONLY)									

CRYSTAL

X001	1-795-006-21	VIBRATOR, CRYSTAL
X301	1-781-377-31	VIBRATOR, CRYSTAL

REF. NO.	PART NO.	DESCRIPTION	VALUES	REF. NO.	PART NO.	DESCRIPTION	VALUES
<u>PACKING AND ACCESSORIES</u>							
	1-501-730-41	ANTENNA, TELESCOPIC (KV-21FA340/21FA540 ONLY)		 11	1-830-586-11	CORD WITH CONNECTOR (KV-21FA540/29FA540 ONLY)	
*	4-041-255-01	BAG, PROTECTION (KV-21FA340/21FA540 ONLY)			2-667-355-41	MANUAL, INSTRUCTION (KV-21FA340/29FA340 ONLY)	
*	2-657-860-01	BAG, PROTECTION (KV-29FA340/29FA540 ONLY)			2-670-748-41	MANUAL, INSTRUCTION (KV-21FA540/29FA540 ONLY)	
*	2-672-613-01	CARTON, INDIVIDUAL (KV-21FA340 ONLY)			1-417-182-11	MATCHING TRANSFORMER, ANTENNA (KV-21FA340/21FA540 ONLY)	
*	2-672-778-01	CARTON, INDIVIDUAL (KV-21FA540 ONLY)			2-670-360-41	SHEET, QUICK GUIDE (KV-21FA340/29FA340 ONLY)	
*	2-672-612-01	CARTON, INDIVIDUAL (KV-29FA340 LATIN NORTH ONLY)			2-670-749-41	SHEET, QUICK GUIDE (KV-21FA540/29FA540 ONLY)	
*	2-686-789-01	CARTON, INDIVIDUAL (KV-29FA340 ONLY)		<u>REMOTE COMMANDER</u>			
*	2-672-779-02	CARTON, INDIVIDUAL (KV-29FA540 LATIN NORTH ONLY)			1-468-835-11	REMOTE COMMANDER (RM-Y194)	
*	2-686-790-02	CARTON, INDIVIDUAL (KV-29FA540 ONLY)			4-084-290-01	BATTERY COVER (RM-Y194)	
*	2-584-131-03	CUSHION, LOWER (KV-21FA340/21FA540 ONLY)					
*	2-582-911-02	CUSHION, LOWER (KV-29FA340/29FA540 ONLY)					
*	2-584-130-03	CUSHION, UPPER (KV-21FA340/21FA540 ONLY)					
*	2-582-910-03	CUSHION, UPPER (KV-29FA340/29FA540 ONLY)					

In an effort to reduce the size of this pdf file the tiled schematics are not attached to this Service Manual. To receive a complete set of the tiled schematics for this manual please submit a request to:

Service_Promotion@am.sony.com.